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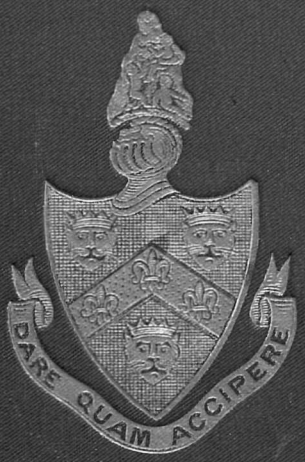

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Sir Alfred Fripp

GUY'S HOSPITAL GAZETTE.

VOL. XXV., No. 588.] JANUARY 7, 1911. [SIXPENCE.

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Passim.

THE present issue of the GAZETTE opens a new volume, the 25th. An index and title pages for last year's volume will shortly be prepared, and readers who wish to have their sets bound should send them addressed to the Librarian, Guy's Hospital, with directions as to the shade of blue cloth, light or dark, which is preferred.

MONDAY, February 6th, is a date our readers would do well to bear in mind, as it is expected that Staff-Surgeon Charles Marsh Beadnell, R.N., will deliver a lecture before the Physical Society, in the Physiological Theatre, on the subject of "Modern Bullet Wounds," at 5 p.m. on that day. Staff-Surgeon Beadnell has seen much active service in the Filipino and South African Wars, and his lecture will be illustrated by Lantern Slides. The subject is one with which the medical civilian would like to be more familiar, especially in view of recent events in the Very Near East, and also is certain to appeal to members of the Officers' Training Corps. The Secretaries state that the Physical Society will welcome any medical practitioner who cares to attend.

WE are asked to remind Oxford and Cambridge men that the annual dinner of their club is to be held in the Oak Room at the Trocadero on Friday, January 13th, at 7.30 p.m. Dr. Hertz has kindly consented to take the chair. Members of the club who wish to attend the dinner should send in their names without delay to the Hon. Sec., Mr. J. G. Saner.

CHRISTMAS, 1910, has "gone," as hospital Christmases have a way of going. All the mirth and jollity and hard work, and eating of rich things, and giving and receiving of presents, which traditionally are a part of Christmas, were crowded into the week, quite in the usual way. People who could sing, or "sing," or play the piano, or design posters, or generally "do things," were very much in request, as usual. People who do not do things found plenty to do in applauding the others, handing round tea, carrying patients, putting up decorations, escorting sisters, cousins and aunts, and—hardest of all—explaining topical allusions to the latter. So everyone was busy and happy, quite in the usual way. The Niggers were said to be better than before, as usual. Of course, there were rumours of changes. We were told, for instance, that the wards were not going to be decorated this year, but somehow or other they blossomed

out in beautiful lamp shades, and still more beautiful mistletoe and ivy, etc., quite in the usual way. There were, perhaps, more variety and greater simplicity in the decorations—both admirable qualities—but then it is quite the accepted thing to have some improvement on last year's decorations.

THE *Pall Mall Gazette* in a well-written article on Christmas in the hospitals, devoted special attention to Guy's. The appearance of the wards was described thus :—

> "Every ward in due course becomes a garden of flowers, not the heavy, old-fashioned flowers associated with Christmas of a past generation, but the daintiest and most perfect imitation of real roses, chrysanthemums, carnations, or marigolds, fashioned in paper so cunningly as to deceive one into the belief that they are real, even on the closest inspection. Trails of flowers and leaves are interlaced across every ceiling; and inside them, here and there, are electric lamps, while every chimney breast is a bower of climbing ramblers of some sort. One room is a blaze of pink, another of gold, another of soft rosy red.
>
> "In the hearth of the Maternity ward are two great storks, one with the traditional human baby in its mouth. The stork this year did its work well, for a real baby was dropped into that ward on Christmas Day while 'Noël' was being sung; a sturdy and handsome boy, who seemed quite happy in his white lace-trimmed cot, with his name 'Noel' on a little card at the foot. His young mother was, perhaps, the most Christmassy person in the wards, with her little new-born son."

THE Niggers were very well drilled by Mr. Elliott, and gave an excellent account of themselves on Boxing Day, when they went their round, more arduous than that of the most painstaking physician. The costumes particularly struck us as exceptionally good, and if some of the band helped but little to swell the chorus, their costumes justified their presen e there. Mr. Lucey's costume as a savage excited universal admiration, and we were glad to see him in it again on New Year's Eve, in the light of the bonfire, to which it added a new picturesque touch. In the Niggers there was also a hobble skirt, a parody of a bride, an excellent Chinaman, a Knight Crusader, and a stalwart Sister, who, we understand, is to be appointed to the Strong Room. The solos were well chosen, and were sung with much gusto. The "wheezes," we are told, were also good. Most of those we heard had some connection with eggs, and were not exactly new laid. No notice of the Niggers would be complete without some reference to the decorative drawings made by Mr. Wingent for the programme, a copy of which is given to every patient in the wards. Mr. Wingent was particularly happy in the designs for this programme, and we do not remember to have seen a better one.

THE hospital artist was also kept busy in designing posters to announce the various ward concerts. These hang in the Colonnade, where all may see, for a few days only, but to their fortunate possessors in after years they must be a very pleasant reminder of a pleasant Christmas. In order that they may enjoy a wider circle of acquaintances, we are publishing in this issue some small reproductions of several of Mr. Wingent's posters.

THE Residents' Going-off Dinner was held on Boxing Day, at the conclusion of the Niggers' round, and was very merry and bright. Mr. Mills, the off-going President, and Mr. Fitzmaurice, the Vice-President, will be much missed at the Residents' table. They, with the other off-going Residents—Messrs. Attwater, Darke, and Berry—have put in a great amount of Christmas work in addition to their ordinary duties, and some of this, perhaps, which is not so much in the public eye, is apt to be overlooked by the Christmas chronicler. Mr. Bromley was elected the new President, and Mr. Webster the new Vice-President, and we feel sure that no elections (certainly not the General Election of December, 1910) could have been more popular. Some of the Niggers had actually some singing voice left with which to entertain us at the dinner, and their splendid lasting power deserves honourable mention.

IT is distasteful to sound an antagonistic note in connection with Christmas, but we really think the scene which followed the New Year's

Eve bonfire deserves condemnation. It is one thing to capture and burn a barrel of nut oil, but it is quite another to seize the hose-pipe, as some hooligan did, and turn it on those members of the general public who do us the honour of watching our New Year frollickings from the front gates and railings. It may be we are taking too serious a view of a small matter, but as these people, self-invited though they be, are in a sense our guests, it is scarcely hospitable to treat them in such a manner, nor is it playing the game. It says much for their good nature that they took this horse-play (or hose-play) in the spirit in which no doubt it was intended, but in some parts of London we know it might have given rise to something very like a riot.

ON the 22nd of last month the hospital was summoned at the Tower Bridge Police Court for having used armorial bearings without a licence. The case had reference to the Hospital Arms engraved on certificates given to nurses. It seems that for many years the armorial bearings, which were granted to the hospital in 1725, have been in use without any licence. Municipal corporations are exempt, and it was supposed that corporations such as hospitals would also be allowed to go free, but the authorities took a different view of the case, and the hospital had to pay a fine of 10s. and 2s. costs. Happily, in the present state of the hospital finances, this did not prove ruinous.

OWING to the general excitement and busy times prevailing at Christmas, it is possible that some of our readers have not yet heard of the fund which has been opened on behalf of Miss Newton, the Matron of the College. A letter relating the sad ill-fortune which has deprived Miss Newton of her savings was published in our last issue, together with a preliminary list of subscriptions. A further list will be published in the next issue. We would ask old Guy's men who see this paragraph to bring it to the notice of others who may not do so. Subscriptions should be sent to Mr. C. H. Wells, Office of the Secretary to the Treasurer, Guy's Hospital, and will be duly acknowledged in these columns.

WE have been asked to call attention to the existence of the University of London Musical Society which was formed five years ago for the encouragement of vocal and instrumental music among members of the University, and students attending the Colleges and Schools of the University. Rehearsals are held every Monday in the Botanical Theatre, University College, Gower Street, W.C., the Choral section meeting at 6 p.m. and the Orchestral section at 8 p.m. The Society is under the able conductorship of Mr. Richard Walthew, A.R.C.M. The subscription for Graduates is 10s., for Undergraduates and present Students 7s. 6d. Further information may be obtained from the Hon. Sec., Dr. C. E. Lakin, The Middlesex Hospital.

Pass List.

University of London, December, 1910.

FIRST EXAMINATION FOR MEDICAL DEGREES.

INORGANIC CHEMISTRY, PHYSIOLOGY AND BIOLOGY.

Eric Biddle. | G. B. Dowling.

M.D. EXAMINATION.

BRANCH I.—(MEDICINE).

H. S. Brown, B.S.

BRANCH III.—(MENTAL DISEASES AND PSYCHOLOGY).

J. G. P. Phillips, B.S.

BRANCH IV.—(MIDWIFERY AND GYNÆCOLOGY).

H. O. Brookhouse, B.S.

BRANCH VI.—(TROPICAL MEDICINE).

H. C. Keates, B.S.

Appointments.

Civil.

BANKART, A. S. B., M.C. Cantab., F.R.C.S., has been appointed Assistant Surgeon, Queen's Hospital for Children.

CHASE, R. GODWIN, M.B., B.C. Cantab., has been appointed Hon. Surgeon to the Chesterfield and North-East Derbyshire Hospital.

REYNOLDS, L. W., M.R.C.S. Eng., L.R.C.P., L.S.A., J.P., has been appointed one of the Medical Referees under the Workmen's Compensation Act for County Court Circuit, No. 37, (High Wycombe, Aylesbury and Chesham).

SPRIGGS, DR. E. IVENS, has been appointed Medical Officer to the University of London.

Christmas Week.

The Residents' Theatricals.

The theatricals were held in the Physiological Theatre, on Tuesday, Wednesday and Thursday evenings of Christmas week.

The first part of the programme consisted of a performance of:—

"THE GHOST OF JERRY BUNDLER."

By W. W. JACOBS and CHARLES ROCK.

Hirst		H. F. RENTON
Penfold, Malcolm, Beldon	(Commercial Travellers)	C. H. MILLS, H. L. ATTWATER, A. L. FITZMAURICE
Somers		L. BROMLEY
Dr. Leek		E. L. ELLIOTT
George (a Waiter)		V. T. P. WEBSTER

Scene: The Commercial Room in an Old-fashioned Hotel in a small Country Town.

"Jerry Bundler" is an old favourite at the hospital, having been performed at the Residents' Theatricals on two previous occasions, in 1902 and 1903. In both those years Mr. H. M. M. Woodward was the "Hirst"; in 1902 Mr. J. M. Brydone was the "George," and Mr. A. Pearson the "Penfold"; in 1903 Mr. Edridge was "Penfold," and Mr. Blake Odgers was "George."

The story of this stirring little one-act play is therefore well known, and need not be related here. It is only necessary to say that the performance of the play was exceptionally good. It would scarcely be wise, especially as we did not see the previous performances, to compare this with them, but we can say without hesitation that they cannot well have been better than this. As a whole, the actors gave a finished performance. They knew their words, which is saying a great deal in an amateur performance, they acted naturally, and they did not force the situations.

To come to details, Mr. Mills' acting as the old man Penfold was dignified and impressive; the part is designed to prepare a tragic atmosphere, and this Mr. Mills did to perfection. Mr. Renton, as Hirst, carried off the honours of the evening. The part was particularly well suited to his abilities, and he made full use of them. His entrance at the end of the play as the ghost was really thrilling and not ridiculous, as it might so easily be in less capable hands. Walking as if in sleep, he slowly took off his blood-red scarf, and then fell with a cry under a shot from the doctor's pistol.

The less important parts were almost equally well performed. Mr. Webster's George was a beautiful bit of acting—sincere, and restrained. His gait alone was a pleasure to watch.

None of the other performers had the advantage of acting in costume, and it is all the more to their credit, therefore, that they gave such a good account of themselves. Mr. Attwater was particularly successful as Malcolm, a "solid" type of commercial traveller; Mr. Fitzmaurice supplied the only comic relief in the piece; Mr. Elliott and Mr. Bromley were both natural and convincing in their parts of the doctor and Somers respectively.

The staging was quite effective. The piece was well received on each of the three nights, and happily the audience realised that it was a tragedy and did not treat it as a farce, and that in itself says much for the quality of the acting.

Between the two plays there was an entertainment of a miscellaneous character. On the Tuesday, Messrs. Irvine, Carey and Doll sang, and Mr. Jarvie played the accompaniments. On the other two evenings a small string band, under the direction of Mr. Hunt, played delightful light music, which did not interfere with the conversation of some of the audience, and charmed the others.

On Thursday evening, also, Dr. Byrd Page showed some of his marvellous conjuring tricks. Dr. Byrd Page is very popular with Guy's audiences, and some of his success, no doubt, lies in the delightful banter and sarcasm to which he treats his unfortunate victims among the audience. To sit in the front row when Dr. Byrd Page is on the platform is no light responsibility.

The third part of the entertainment was a farce, entitled

"THE TOP OF THE MONUMENT."

"A TOPICAL IMPOSSIBILITY."

Perpetrated by L. E. BERMAN, assisted by certain of the ruder Residents.

Heavens (a Custodian)		C. H. MILLS
Cornelius K. Rockebilt, Reuben P. Vanderfiller, Dr. Cyrus J. Astorgould	of the U.S.A.	V. T. P. WEBSTER, G. DUNDERDALE, H. L. ATTWATER
Emile Bozencrantz (an Inventor)		E. L. ELLIOTT
Mr. Di'monds (an eminent Surgeon)		H. N. ECCLES
A Student		A. L. FITZMAURICE
Another Student		L. BROMLEY
Yet Another Student		... C. WITTS
Ditto		S. J. DARKE
Mr. Arbuthnot Plane		H. F. RENTON
Frank Fairleigh		R. C. H. FRANCIS
Edna (a Nurse)		H. C. LUCEY
John Willie Dobbs (frä Brädford)		R. MONTGOMERY
Commissionaire		F. S. BERRY

Scene: The Platform of the Monument.

Time: 19' GOK.

The main idea of the farce is taken from a French piece called "Paroles en l'Air," and as adaptations from the French are always supposed to be a little *risqué*, or say Parisian, in flavour, we may as well state at once that there was nothing in this play to shock the most sensitive ear, although allowance must of course be made

for the fact that a hospital audience is, perhaps, as immune to shock of this sort as any.

The piece is described by its authors as a "Topical Impossibility." In that case, how *could* they do it? Like "Hamlet" and the "Chocolate Soldier," and other famous plays, and like the curate's egg (which, by the way, ought to be the name of a play), parts of "The Top of the Monument" were excellent. The end was not one of these parts, for the play didn't end exactly: it just left off.

The plot? There were two plots, but it really doesn't matter, does it? Plots are so out of date now, aren't they?

Plot No. 1.—One Bozencrantz, an inventor, has devised a patent invisible net for the purpose of catching anyone who should jump from such a spot as the top of the Monument. For you must know that at the time of the play they have taken away that cage affair, and turned it into a petrol supply station for æroplanes (that, you see, is both topical and an impossibility). The net has been fixed in position for a month, which is the time the Government has allowed for tests before taking it up on their works. But it is now the last day of the month, and so far no one has jumped. The inventor, distracted, offers £20 to the custodian of the Monument if anyone jumps or falls into the net during the day. It afterwards turns out that the inventor, true to his name, has on a previous occasion offered the same amount to the Commissionaire, but that when the time came for paying there was no £20. The custodian learns this from his pal, the Commissionaire, and then exposes Bozencrantz before a crowd of Americans and other visitors. Hounded from one to the other, the desperate man at last jumps himself from the platform of the Monument, and is caught in the net, to be picked out later by the forceps of an eminent surgeon. The custodian then demands his £20, since a man, the inventor himself, has jumped into the net. Forced by public opinion, the inventor grudgingly forks out the money.

Plot No. 2.—This concerns a nurse named Edna and a young man named Frank Fairleigh. They quarrel, part for a time, and are then re-united. They choose the top of the Monument for these purposes. The young man nearly commits suicide after his nurse has thrown him over, but in a terrific struggle on the parapet the custodian is flung to the ground, and starts throwing a fit, so the nurse comes to his assistance, and by this means she and Fairleigh are brought together again.

Plots 1 and 2 are running simultaneously, and there are one or two minor themes, so that the result is rather a jumble. Not that that would matter, but parts of the play dragged somewhat, and we began to look forward to the next joke. Another feature we very much missed was one or two songs. They add so much to a show of this sort, and provide such a splendid medium for topical allusions that even if none of the players in this particular show had singing voices, we cannot help thinking it a pity that songs were wanting.

When all that has been said, we must hasten to add that "The Top of the Monument" was a delightful entertainment. Considered as a play, or even as a farce, it was deficient in some respects, but considered as a "topical impossibility" it was a great success.

That this was so was largely due to three chief actors. Mr. Mills as the Custodian, in a typical Mills' part, was the life of the piece. On the stage nearly all the time, he held it (the play, not the stage) together as no one else could have done. His unkempt appearance, suggestive of the Flemish masters' "topers," was a pleasure to the eye, and his rich dialect speech a pleasure to the ear. His exhibition of his dancing powers would have done credit to the Waterloo Road. His epileptiform attack threw the audience into fits. Mr. Renton, as Mr. Arbuthnot Plane, was superlatively good, and probably more like his model than the model himself. Mr. Renton had mastered the gestures, voice and gait of an eminent surgeon so completely that when he was on the stage all eyes were turned on him. Mr. Renton had nothing particularly witty to say, but he said it so effectively that nothing else mattered. He is certainly inimitable as an imitator. Mr. Lucey, as the Nurse Edna, scored a great personal triumph. A nurse of no small personal attractions, he must have captured the hearts of many of the audience as well as that of his Frank Fairleigh. Mr. Lucey also had nothing particularly witty to say, but when she produced a bottle of gooseberries, it was as effective as a kipper on the music-hall stage.

All the smaller parts were well acted. It is, perhaps, a mistake to include the part of Frank Fairleigh under this heading, for Mr. Francis had a great deal of work to do, but we cannot help thinking that the amount of it was out of due proportion to its importance in the piece. Mr. Francis made the most of an impossible part. The same must be said of Mr. Elliott's Bozencrantz. Mr. Montgomery's John Willie Dobbs was a finished little study of a Yorkshire farmer. Mr. Eccles, though not a very convincing Mr. Di'monds in appearance, gave a good imitation of that eminent surgeon. The trio of Americans was excellent, and Messrs. Berry, Fitzmaurice, Bromley, Witts and Darke (in the part of "Ditto") maintained the general high level.

The "Top of the Monument" was played before distinguished and appreciative audiences on each evening. The calls for "author" were answered by Mr. Berman, who also, with Mr. Mills, acted as stage manager.

The Nurses' Entertainment.

The Nurses' Entertainment, held in the Home on Friday, December 30th, was, as usual, one of the most enjoyable of the Christmas functions. There was an innovation in the arrangement of the rooms: the concert was held in the Nurses' Sitting-room from 8 to 10, so leaving the Dining Hall available for dancing the whole evening. This was very much appreciated, as a disadvantage at these entertainments has always been that the time allowed of so little dancing. The floor was danced into very good condition, and there was good music. Another advantage of this arrangement was that there was more room for everybody than in former years.

The underground passage leading to the hospital had been beautifully decorated, and converted into charming refreshment and sitting-out rooms. Down here also—very appropriately—dwelt three wise women who told the fortunes of those who came to learn from them the secrets of Fate written on trembling hands. So popular were these fortune-tellers that the GAZETTE had no opportunity of consulting one of them.

The concert held in the Sitting-room was certainly the best we have heard at these entertainments. The organisers were wise enough to refrain from being too ambitious, and the result was complete success.

The programme opened well with a Chopin valse played by Nurse Sowter. Nurse Oliver then sang "Flowers from a Cottage Garden," and Nurse Grant gave two violin solos—the beautiful "Le Cygne" of Saint-Säens, and "Madrigale" (Simonetti). Nurse Fletcher, in Old-English costume, sang four old ballads of the kind that endear themselves more to one every time they are heard—"Barbara Allen," "With Jackey to the Fair," "On the Banks of Allen Water," and "Cherry Ripe." Another very popular item was some selections from the "Mikado," which were performed with both dramatic and vocal ability by Nurses Coulton, R. Miller, and McManus. Nurse M. Millar sang an Irish song in costume, and was wise enough to give another as an encore. In these folk-songs Nurse Millar's splendid voice is heard at its best, as she enters so thoroughly into their spirit.

In the second half of the concert, Nurses Dowley and Grant performed a very effective Spanish dance. The famous "Mad Tea Party" from "Alice in Wonderland," played by four nurses, was vastly diverting. Nurse Knight looked Tenniel's Alice to the life, Nurse Strappini was a delightfully sleepy Dormouse, and Nurse Calvert a very amusing March Hare. But the palm must be awarded to Nurse Stewart, whose Mad Hatter was a first-rate performance. Some topical allusions made the mad tea party madder than ever. Somebody asked, for instance, why the ward clerks were like the Colonnade steps, and somebody answered, "Because they are both made to be waited on." A very attractive "turn" was given by Nurses Colston, Moore and Quin in costume. Nurse Colston sang "Daffodil Time" from the "Belle of Brittany," and Nurse Quin sang "By the old Oak Tree," and in each case the trio sang the choruses. Nurse Allen, attired as a gallant Highlander, gave a stirring recitation, and as an encore recited "Seeing Things at Night" very cleverly, and put on a most uncanny convergent strabismus to add to the effect.

From start to finish the entertainment was most successful, and the hearty cheers for the Matron and nurses with which the evening ended were some indication of the appreciation of those who were fortunate enough to be present.

Naaman.

A very high-class Concert was given in Naaman Ward on Wednesday, December 21st. Miss Margaret Champneys, Miss Ruth Brandon, Mrs. Keep, Mr. Charles Jones, and Mr. Clive Carey sang solos, and their beautiful singing was much appreciated.

Miss Marion Scott played several violin solos with much effect, and Miss Wynter gave a recitation. The Misses Gardiner and Mr. Gardiner played a trio for piano, violin, and 'cello. Miss Katnleen Milne gave much pleasure by her delightful dancing.

Mr. Harold E. Darke, F.R.C.O., played a pianoforte solo, and accompanied throughout.

Queen.

This Concert was held on Tuesday, December 27th, at 3 p.m. An excellent programme was arranged, and a large and appreciative audience assembled. Hospital talent was well represented, in addition to the visitors who helped so generously.

Mr. Charles Capper very kindly brought a party, consisting of himself, Mrs. Capper, Miss Edith Trevor, Mr. Edgar Coyle, Mr. Oswald Womack, and Mr. Arthur Winter.

Mr. Capper is well known to those who have been to former concerts in Queen, but his whistling seemed even more wonderful than ever this year; his rendering of the "Harmonious Blacksmith" was especially good, and delighted the audience. Mrs. Capper's recitations were also greatly appreciated.

Miss Edith Trevor sang "Love is meant to make us glad," and "Cherry Ripe," both of which suited her beautiful soprano voice to perfection.

Mr. Edgar Coyle gave a truly admirable rendering of "A Farewell," Liddle's setting, which thoroughly deserved the enthusiastic reception awarded to it, and Mr. Oswald Womack contributed a very agreeable item in the shape of a Clarionet solo.

Mr. T. Kyrle Adkins also brought a party consisting of himself, Miss Mabel Church, Miss Burley, and Mr. Jack Napper. The last mentioned gave two excellent recitations. Miss Mabel Church sang "The Pipes of Pan," and "My Moon," and Miss Burley gave a very

excellent account of "Heart's Delight," and one of Liza Lehmann's Bird Songs, entitled, "The Wren." A selection of trios and quartettes from Gilbert and Sullivan Operas, with orchestral accompaniment, was given by Misses Oram, Dresser, Hunt, Gardiner, and Messrs. Carey, Irvine, Hunt, and Gardiner. The numbers given were as follows:—

Yeomen of the Guard - "Strange Adventure."
"A Man who would Woo."
The Gondoliers - - "In a Contemplative Fashion."
"A Regular Royal Queen."

These are always popular, and they were rendered most delightfully.

A novel item on the programme was a Dutch Dance, by Miss Oldendorf. This was very well executed, and the pretty costume took everyone's fancy. Miss Winter's humorous recitations were also very much enjoyed.

Nurse R. Miller sang "Seville Gipsy Song," in costume, "The Zoo," with chorus, and "Two little Irish Songs." She is to be congratulated on a thoroughly charming performance, and we have rarely heard her to such good advantage.

Nurse M. Millar sang "Divided," and two of Amy Woodforde Finden's "Indian Love Lyrics," in costume, also the "Kerry Dance." Her rich and beautiful voice is so well known that praise seems superfluous. It really seems sufficient just to say Nurse Millar sang.

Mr. Clive Carey gave us "Oh! no, John," and "Mowing the Barley," as he alone can sing them, and Mr. Irvine sang "King Charles" and the "Gentle Maiden" (Somervell).

Mr. Dunderdale sang Stanford's "Trottin' to the Fair."

The accompanists were Messrs. Kyrle Adkins, Arthur Winter, and J. M. Jarvie. The last named really bore the brunt of the work, and accompanied song, dance, clarionet, or anything else with equal skill and success.

One member of the staff pronounced this the best Ward Concert he had ever attended, and without doubt it was a thoroughly enjoyable and successful entertainment.

Bright.

This Concert was held on the afternoon of the 28th. The hall of the ward was decorated, and served as a concert room. It was packed with an appreciative audience. Mr. Waller opened the proceedings with a pianoforte solo, and Messrs. Carey and Irvine each sang one or two solos. Other songs were given by Mrs. Coates, Miss Raper, and Miss Fielden Roselle, whose "Folk Song" was particularly delightful.

The Gilbert and Sullivan Quartette gave several items, including "Tower Tomb" and "A Man who would Woo," from the "Yeomen of the Guard," and the "Madrigal," from the "Mikado."

There was a short interval for refreshments, and the proceedings terminated with a hearty vote of thanks to all those who had been so kind as to contribute to the programme.

Job.

A concert was held in Job Ward on Thursday, December 29th, and proved most enjoyable to the large gathering of patients and visitors who were present. The proceedings were opened by a pianoforte solo by Mrs. Symonds, whose kindness in coming down and taking part was much appreciated. This was followed by a song by Miss M. Dyer, whose excellent voice, and subsequent skill in accompanying both songs and dances at a moment's notice, earned her the gratitude of all present. Mr. Eliot Makeham gave "Nini, Ninette, Ninon," in a charming manner, and responded to the applause by singing "I feel so lonely." Mr. Harry Welchman, an always welcome Christmas visitor to Job, was in excellent voice, and his songs were much enjoyed. Mr. Irvine, a well-known Christmas worker, gave a song, and was followed by Mr. Eccles, whose comic songs with chorus effects brought the "house" down. Miss Marshall, in "The little boy next door," was charming, and earned a well-merited encore. Miss Howard Cunnick followed with a scarf dance and a skirt dance, her daintiness and grace being provocative of much applause, and her performance being all the more creditable considering that she had undergone an operation the day before. Messrs. Francis and Eccles were heard in a comic duet, which was followed by an extremely clever song and dance by little Miss Phil Harding. Mr. Tollmashe gave a couple of songs in a delightful baritone voice, after which "Mary," a little patient from the Eye Wards, danced with charming *sang-froid*. Mr. Francis gave a very voluble song about the worries of a motor-car, and after further items by Miss Marshall, Miss Dyer, Mr. Welchman, another fancy dance by Miss Howard Cunnick, and a song by Mr. Makeham, Mr. Montgomery concluded the proceedings by singing "There are Nice Girls everywhere."

Accompaniments were kindly played during the afternoon by Mrs. Symonds, Miss Allison, and Miss Dyer, and Mr. Francis expressed in a few words the gratitude of all present to those ladies and gentlemen who had so kindly come down and helped to make the concert a success.

Stephen.

This concert was held on Thursday, December 29th, and was arranged by Miss Decima Moore. Among the well-known artistes who kindly came to assist were Miss Eva Moore, Madame Bertha Moore, Mrs. Pertwee, Miss Frances Davey, Little Mona, Miss Maughan, the Marcos, and Messrs. Haydon Coffin, Ernest Denney, Gerald French, Nelson Keys, Philip Henry, Alfred Capper, and Guy Pertwee. Mr. Gilbert undertook the duties of stage manager.

The Luke, Cornelius and Charity Concert.

On Friday, December 30th, Luke, Cornelius and Charity Wards Concert, given by Mr. Camplin Smith, was held in the Physiological Theatre. One hundred and fifty patients were brought to the theatre from the different wards, and all thoroughly enjoyed the excellent entertainment given by the artistes.

The following programme was performed:—Overture, Mr. Leonard Chalk; Humorous, Mr. Jack Napper; Light Comedy, Miss Rose Phillips; At the Piano, Mr. Bernard Gluck; Song, Mr. Jack Phillips; Recitation, Mr. Shiel Barry; Humorous, Mr. Alec Thompson; Song, Miss Ella Salmon; Dancing Speciality, Miss Letty Phillips; Recitation, Miss Madge Titheradge; Humorous Sketch, Mr. Montague Love; Song, Mr. Charles Lascelles; Recitation, Mr. William Haviland; Song, Miss Fanny Altman; Humorous, Mr. Herbert Jarman; Recitation, Miss Lilian Braithwaite; Humorous, Mr. Nelson Keys; Song, "My ain Scottish Hame," Miss Bessie Abelson. Mr. Willie Hood acted as Stage Manager, and Mr. Leonard Chalk played the accompaniments.

The concert was brought to an end soon after 4 o'clock, Sir Alfred Fripp thanking those who had so kindly given their services. Many of the assembled visitors afterwards took advantage of the kind invitation of the Sisters Luke, Cornelius, and Charity to tea in their respective wards. This was much appreciated by everyone, the wards themselves being very prettily decorated and the tea superb.

Astley Cooper.

This concert was held, as usual, on New Year's Eve, and was as jolly as ever, and from an artistic point of view, better than ever.

Among the visitors who kindly came to assist was Master Guy Sadd, L.C.V., whose talented violin playing aroused universal admiration; the audience was not satisfied with one encore from him, but demanded two, and would have liked more still. Miss Eileen Allen kindly came in the place of Miss Rosina Fillippi, who was unfortunately unable to appear as announced, owing to indisposition. Miss Allen gave several clever recitations. Miss Elsie Wild in her two solos showed herself to be a skilful lady flautist.

Mr. Clive Carey, whom perhaps we should not call a visitor, as he has done so much for the hospital, both this Christmas and last, sang two comic songs in his own irresistible way. Later, attired in the attractive costume which he wore in the Niggers, together with his most winning smile, he brought down the house with Wilkie Bard's song: "I Want to sing in Opera." Mr. Carey also sang with Mr. Eccles in "Maria," and with Mr. Martyn Lobb in "I worship the ground," etc. Mr. Eccles sang several comic songs, and was very successful in getting the chorus going. Mr. Lucey, dressed in his very effective savage costume, roused the audience to the highest pitch of enthusiasm by his clever singing and energetic dancing of "Razors in the Air." Mr. Renton recited "The Last Shot," and as an encore gave some imitations of some of our well-known actors. Mr. Mitchell sang a sentimental-comic song.

Messrs. Doll, Sherris, Catto, and Dunderdale provided a very welcome relief to some members of the audience by their singing of non-comic songs (if we may be excused the expression). Of course, at the Astley Cooper concert, the loud guffaw and the rollicking chorus are the real business of the evening, but these singers deserve our thanks for reminding us that there is another sort of music.

The arrangements for the concert were carried out without a hitch by Sister Astley Cooper and her band of willing helpers. Cheers for sister and for the performers brought to a close a very enjoyable concert, which itself was the *finale* to a very happy Christmas.

"Money"

(A former Patient in one of the Medical Wards.)

"We call him 'Money,' 'cause he always plays
With pennies on his bed-quilt!" Sister said;
"A quiet boy"—from Sister this was praise
Indeed for that pale youngster on the bed,
Who stared at me with large, wide-opened eyes,
And puckered mouth, drawn ready for a cry:
I, his new dresser—hence his wild surprise—
Till Sister called our cheerfully, "Oh, fie!
Money, you should say, 'Morning, sir!' Be good
And you shall have a penny by and by.
Oh, goodness, look—your frock's all over food!
You are a piggy boy. There, there, don't cry!"

This was my introduction to the lad,
A sweet-faced child, so white of cheek and wan,
Blue veined his skin, his deep-set eyes were sad
As if a strain of melancholy ran
Behind them: when he smiled his mouth showed teeth
Ill shaped, and chipped and carious in the crown,
And all the gum gone white, dead white, beneath.
That clear white skin, and those blue marbling veins,
And those large eyes, translucent in their blue—
Some would have deemed them handsome, these remains
Of what he was before: but Sister knew!

"Poor Money's not so well to-day, you know:
He cried all night and kept the ward awake.
Nurse, get things ready for the dressings—oh,
There's Mr. Milsom waiting, I must take
Him round: he's so impatient! Here comes nurse
Laden with lint and jars of yellow gauze."
"You'll need the rubber drains: I think he's worse,
It's blocked again, that tube: it never draws!"

She makes him ready for me while I go
To wash my hands and sterilise the things,
Hearing an echo of the boy's "No, no!"
A dismal cry that breaks before it rings
Clear. A large drainage roll was in his side
Clogged full with flakes and drops of frothy blood.
I took it out while Money sobbed and cried
And nurse his hands and forehead stroking stood.
"He's howling, nine, just hear! Cry, baby, cry!"
Jeered a young Borough girl in number ten—
A bettering typhoid, shrill of tone and high
(For children pity children less than men),
She had been sick, unconscious, little pain,
Much more concerned about her drink and food,
All eager to be up and home again—
"A nasty minx," said nurse. "Money, be good!
And number ten, for shame to laugh and grin!"
"She's aye like that," an old pneumonia said,
"She needs a hiding, nurse, the little sin!"
"You wait till something's wrong with you instead,
You cried enough once: didn't she, number nine?"
"Eh, but she did." "Oh what a cram," cries ten;
"You wasn't here!" "Aye, but I heard yer whine,
Yer was yerself the gritest biby then!"
"Hush, hush," says nurse; "sister'll hear you. There
It's done at last! there, Money's a good lad,
He'll have his penny: that's his only care,
You're mad on pennies, aint you, Money, mad?"

So I left Money gratefully at peace
With all the ward, some pennies to the good,
O'er which he gloated, leisurely at ease,
Varying his happiness by taking food,
And making friends—how keen the woman draws
The male soul!—with that nasty number ten
Who tried advances, to negate her flaws,
By offering as a sacrifice her hen—
A horrid wooden reptile-looking thing
From out her storehouse 'neath the socks and shards—
One of those toys the Sunday callers bring
To charm the Borough children in the wards.
And he, forgetful of the sneer and grin
Before, did not reject, as God did Cain's,
But smilingly accepted and took in
And set it with his store of monied gains.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the GAZETTE *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs.*

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

John Hilton.

SIR,—I do not propose to fight John Hilton's battles, but somehow it hurts, after forty years, when one has learned that the sweetest nut may be hidden in the roughest shell, to read of his "blunt brusqueness," "sarcastic and irritating," and worse, of his hasty catch at the comforting straw of the thought of his dressers' kindly remembrance of him when he was a sad and dying man, and to-night, while awaiting the demise of the truly rough year of 1910, I am tempted to jot down a loving thought to his memory.

The biography published in the last GAZETTE is in many ways excellent, is clever, is true; but no dresser of Hilton's could have written it, for it is only partly true, and suppresses the good points which his intimates most recognised. Can anyone look at his speaking likeness and believe that to be the face of a brute?

His sarcasm, his coarseness, his bluntness, had always an object, and I dare assert that no one ever saw him petulant or irritable, while those few who remember his last clinical lecture must also remember his almost piteous humility when he bravely described how the death of the subject was due to his own want of skill, in language worthy of a Paget, and a voice—as his always was when he spoke in public—softer and more attractive than a Gladstone or a Granville.

If his old dressers have not thought of him "at least once a day," most of us in our old age look back with pride and regret to the days when we could be "bullied" by Hilton, and all of us who ever asked his help look back with affectionate gratitude to the ready kindliness with which it was afforded.

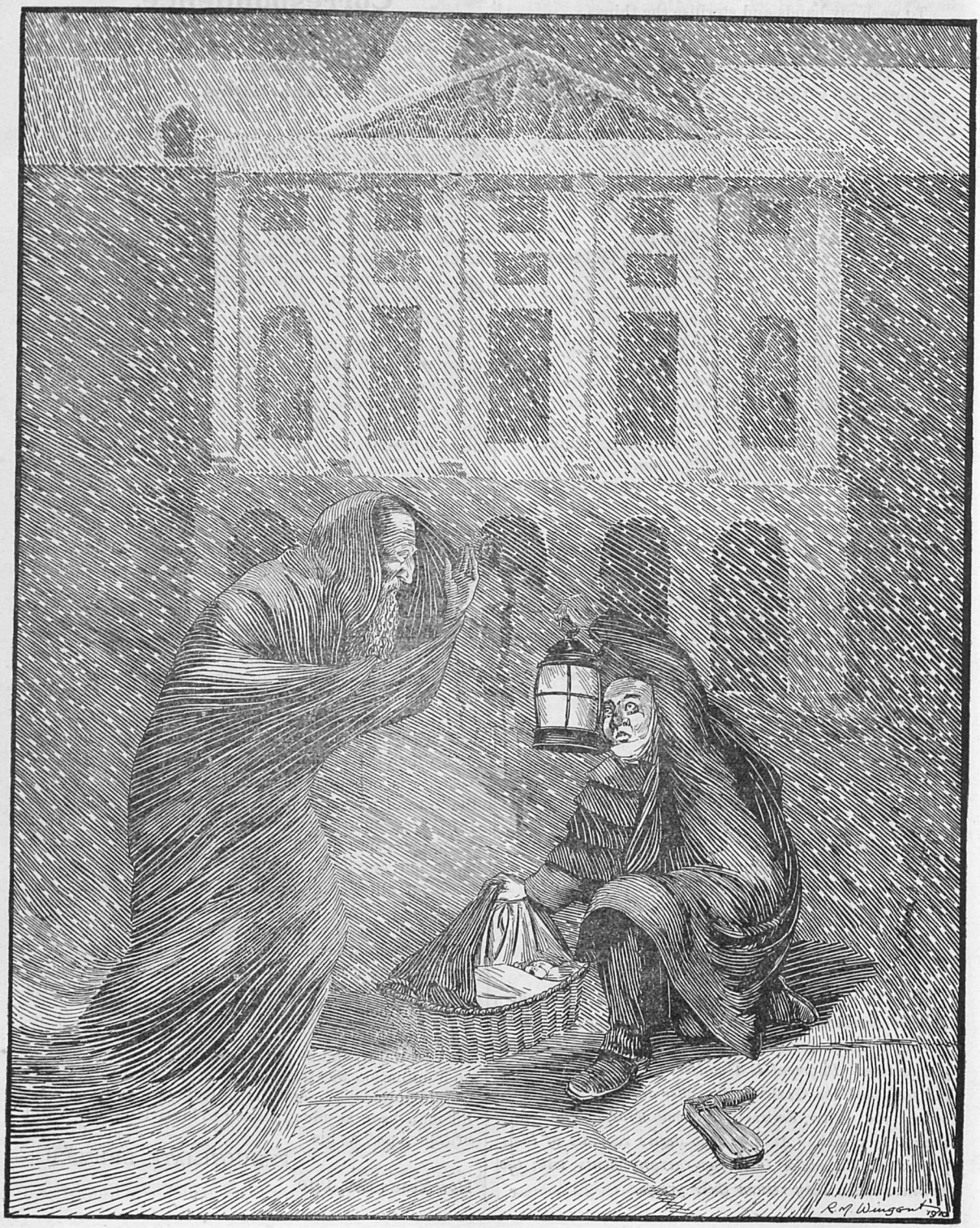
There is one little mistake, I think, in your notice; the date of his retirement from the full surgeoncy was 1870, a few months before Mr. Cock also retired, so that Hilton was never senior surgeon, but was, nevertheless, the senior, and first, consulting surgeon.

Like Gull, he abhorred carelessness, idleness and foppishness. He never wore a ring, and I cannot remember that any of his dressers ever did, while they worked for him, for he had a tale of a death caused by a jewelled ring lost in an abdomen—the gravest accident in those days before Lister—a tale which he told with most convincing emphasis.

He was a diamond, imperfectly cut perhaps, but of the first water, and no venom lurked behind his sarcasm, no humiliation was felt by his victims—can that always be said nowadays?—and the patients of many a successful man have as much reason to bless Hilton's "blunt brusqueness" as his

PENULTIMATE DRESSER.

New Year's Eve, 1910.



A Case of Subphrenic Abscess.

CLINICAL LECTURE BY DR. HALE WHITE.

GENTLEMEN,—This afternoon I want to go over with you a case which is in Miriam ward, and which has interested us very much. The patient, a woman aged 31, told us when she came in that for about five years past she had had repeated attacks of indigestion, with pain in the epigastrium, coming on twenty minutes after taking food, often accompanied by vomiting. The vomiting had never been dark; she had never passed any tarry motions. The present illness happened in this way. At 1.45 on October 5th she began to drink some soup for her lunch, and as she was drinking it she was suddenly seized with pain in the epigastrium. It was an agonizing pain, and completely doubled her up. She was taken upstairs and put to bed, and Dr. Warner was sent for. After examining her he came to the conclusion that she had perforation of the stomach from a gastric ulcer, and he advised immediate operation, which she refused. He then kept her quiet, gave her nothing by the mouth, but small doses of morphia in suppositories. He also fed her on nutrient enemata. On October 10th he believed he found signs of a subphrenic abscess on the left side. He then sent her to the hospital. We saw her almost directly after admission, and we found the following state of affairs. She had a pulse of 120, her respirations were 32, and her temperature was normal. She had a good colour except for a little anæmia, and she did not look as though she had any grave abdominal disease. She was rather drowsy from the morphia which she had had, and her pupils were contracted. But in spite of having the morphia she seemed to have a good deal of pain in the epigastrium whenever she spoke or coughed. We noticed that the abdomen moved fairly well on respiration, but that she was tender over the abdomen, especially in the epigastrium, slight pressure there giving her severe pain. Also it was very noticeable that while the lower part of the abdomen was quite supple, the upper part, the recti at their upper attachments, were quite rigid, perhaps the left especially. There was no distension of the abdomen, no evidence of any fluid in it. On examining her further, we found that this tenderness in the upper part of the abdomen, a little to the left, also extended to the chest, and she was somewhat tender over the lower left ribs; and on percussing her in the left axilla we found the note was tympanitic, and on listening while someone else struck a couple of coins we found she had over the lower ribs on the left side a most beautiful bell-sound. That sound, of course, told us air was there. Nothing was wrong with respiration, nor with the circulation, except the rapid pulse; the heart was not displaced. We came to the conclusion, from the history, that she had a perforated gastric ulcer, and that secondary to that perforation a left subphrenic abscess was forming. The reasons for that were that we knew that her temperature, before she came into the hospital, was raised in the evening and down in the morning. She had this bell-sound, which meant that air had passed out of the stomach when it perforated. She had had a rapid pulse, and if I remember rightly there was leucocytosis; at any rate, there was considerable leucocytosis later. That being so, I thought we could not do better than go over some of the points about subphrenic abscess and see how they were illustrated by this case, as it is a matter on which students are often in a difficulty.

It seems to me that the secret of understanding subphrenic abscess properly is to think of the suspensory ligament of the liver as your chief landmark. In the diagram I have drawn, I am supposing the body is cut through downwards, and that the front portion is taken away, so that you are looking at the back half. You see the liver attached to the diaphragm by the suspensory ligament. To the left of the suspensory ligament, therefore, you have a space which is called the perisplenic space (because it is near the spleen), or the perigastric space, or the left anterior intra-peritoneal space. It is the commonest position for a subphrenic abscess. The boundaries of that space will obviously be these: To the right, there is the suspensory ligament; to the left, there is the spleen; above, there is the diaphragm; below, the liver; behind, the left lateral ligament of the liver, while in front there is no boundary, unless adhesions are formed between the anterior wall of the stomach and the abdominal wall. You know the left lobe of the liver laps over the anterior wall of the stomach; it is impossible to draw it here, but if you will picture to yourself the front boundary of that space you will see it can only be formed by the stomach becoming adherent to the anterior abdominal wall. On the right of the suspensory ligament there is the right intra-peritoneal space, and that obviously will be bounded to the left by the suspensory ligament,

above, it is bounded by the diaphragm; below, by the right lobe of the liver, while behind it will be bounded by the right lateral ligament of the liver. In front it will be completed if adhesions form between the right lobe of the liver and the anterior abdominal wall. To the right the boundary is the right abdominal wall. But because the liver is not attached here to the abdominal wall this space communicates here with the right posterior. There are only two other spaces which you need trouble about in thinking of subphrenic abscess. Let us now consider the boundaries of the right posterior space. That will be bounded posteriorly by the upper part of the right kidney, by the lower part of the diaphragm and the right crus, by the duodenum and by the bile duct, by the eminence of the spine and by the left crus, and, further in, at its narrow part by the anterior wall of the stomach with a little of the lesser omentum. In front it is bounded by the liver and gall bladder. Above, the space is bounded by the right lateral ligament, and also by the transverse fissure of the liver. Below, the boundary is formed on the left by adhesions between the anterior surface of the stomach and the margin of the liver, and on the right by adhesions of the great omentum and transverse colon to the margin of the liver and anterior abdominal wall. It is a triangular space, with the apex directed to the left, the base to the right, and formed by the abdominal wall, and round the right hand edge of the liver it communicates with the right anterior space. I hope that your recollections of anatomy have enabled you to follow those spaces. There is only another you need remember, and that is the space between the two layers of the coronary ligament and the liver. This is an extraperitoneal space. So you have to understand three intraperitoneal spaces, and one extraperitoneal space.

Having got those, I will tell you something about these abscesses. Twenty-five per cent. of all subphrenic abscesses are due to a gastric ulcer, 20 per cent. to hepatic abscess, and 20 per cent. to appendicitis, and 7 per cent. due to duodenal ulcer. Therefore those account for 72 per cent. The remaining 28 per cent. are due to such rare conditions that we need not consider them here.

Let us take those caused by gastric ulcer. Remember where the pylorus is, and its relation to the suspensory ligament. Gastric ulcer is usually near the pylorus; therefore when a gastric ulcer perforates, if it is going to perforate into one of the spaces I have mentioned, it will perforate into the first of the divisions which I have mentioned, namely, the left anterior intraperitoneal space. It is a perisplenic or perigastric abscess, whichever you like to call it, and it is not a shut-in space unless the ulcer has previously led to adhesions, which glue the anterior surface of the stomach to the abdominal wall, and so close the cavity towards its lower part.

Supposing hepatic abscess gives you subphrenic abscess. A hepatic abscess is nearly always in the right lobe of the liver, and it is at the upper part of the liver that it nearly always comes to its greatest prominence, between the layers of the coronary ligament, so that a subphrenic abscess due to hepatic abscess is nearly always extraperitoneal, forming between the layers of the coronary ligament and pushing up the diaphragm.

If a subphrenic abscess is due to appendicitis, the appendix being on the right side of the abdomen, it gives rise to either a right anterior or a right posterior intraperitoneal abscess. About half the subphrenic appendix abscesses are in the right anterior space. In the other half the pus collects in the posterior right intraperitoneal space; the boundaries of these you have just seen The right anterior and right posterior spaces communicate to the right edge of the liver, so you are not surprised to hear, when an appendix abscess forms in one of those, it often runs round to the other.

We had in the patient whose case we are considering to deal with a perforated gastric ulcer, and therefore we expected the abscess to be in the left anterior intraperitoneal space, and that is where it was. Subphrenic abscesses, when they are left a long time, may track in almost any direction; they may track up into the chest and cause empyæma; they may track about in the abdomen. To show you how they may track, Mr. Barnard records a case in which an abscess formed round the rectum, the pus tracked up under the subperitoneal tissue along the spine, it got behind the liver, so that it formed a subdiaphragmatic abscess. It then formed an empyæma, which pierced into the lung, and the man therefore coughed up from the lung pus, which originated round the rectum. The practical importance of remembering how these abscesses may track is that sometimes when you open one the patient does not do as well as you think he ought to! That is usually because the abscess, before being open, had tracked to some other part of the abdomen, and there is another collection of pus which has not

properly drained. Often students think that an empyæma will come down through the diaphragm and cause subphrenic abscess. For all practical purposes that never occurs, so never diagnose subphrenic abscess secondary to empyæma.

These subphrenic abscesses are equally common in the two sexes. That is of interest, because if gastric ulcer is so much more common in women as it is said to be, you would expect subphrenic abscess to be more common in women than in men. The reason for the equality of the sexes probably is, as I have often said, that many women who are thought to have gastric ulcer have nothing of the kind, but have gastrostaxis or hæmatemesis due to blood oozing from the stomach.

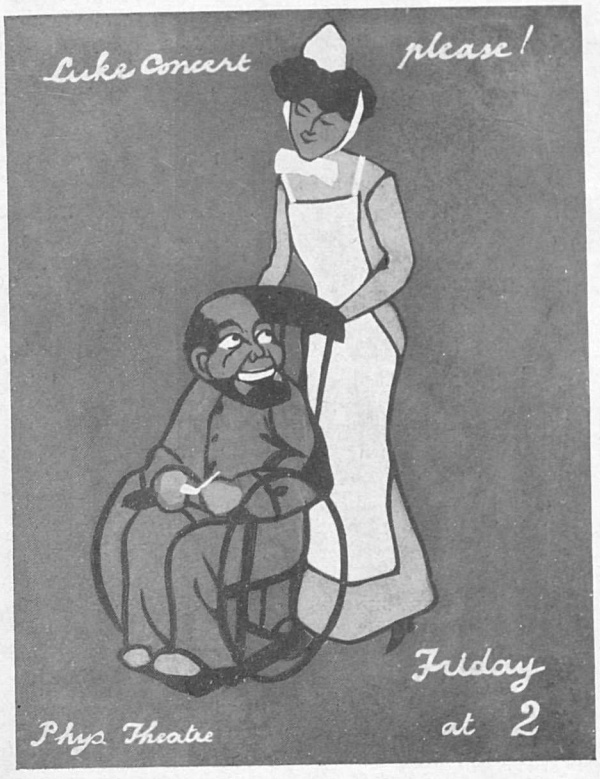
Let us go through the symptoms of these subphrenic abscesses and illustrate them with our case. The previous history will help you; it helped us very much here. The woman had had severe pain, symptoms of dyspepsia for five years. While gastric ulcer cases usually give a history of dyspepsia for years, appendix cases do not usually give a long history of appendicitis, for you know that it is usually in the first attack of appendicitis that severe symptoms, such as those of abscess, occur. The onset of symptoms is naturally sudden, for what has happened has been that the necessary adhesions have formed and closed the space completely which was previously closed on all sides but one, and the perforation occurs into that space, and so causes sudden pain. The pain is at the seat of perforation; therefore, from the position of the pain, you have a good clue as to whether the trouble is due to the appendix or the stomach. The patient is sick nearly always, and after a time, as the pus collects, there is a hectic temperature. The temperature of the woman we are considering had been up and down during the three weeks in the hospital, until the abscess was drained. The pulse is increased, and there is leucocytosis. The last blood count of our patient showed 25,000 leucocytes. The tongue is dry, the patient sweats, and occasionally there are rigors. If that is so, the patient is doing badly, as there is severe general septicæmia. There is an important sign, which was not present in our case, as it was a small abscess, namely, that usually you soon get a visible tumour, which is not surprising, because pus collects in a small space bounded on some sides by distensible structures. If it is a left anterior or perigastric abscess, there will be a visible tumour in the left upper part of the abdomen. If it is an abscess due to appendicitis in a space to the right, the right lower ribs are bulged. The importance of this is great, for if you are dealing with empyæma, the latter rarely gives rise to bulging; it has to be gigantic before it does that, for the lung is more easily compressed than the chest wall is distended If there is not a visible swelling, you may sometimes find, on measuring with a tape, that the lower ribs bulge more on one side than on the other. An important sign is that there is tenderness over the abscess, and the tenderness in our case helped to guide us to the abscess. Tenderness is usually greatest where the pus is nearest to the surface, and is often, therefore, of great help in precisely localizing the abscess. Nor are you surprised to learn that, as in this woman, there is frequently rigidity over the right or left upper part of the abdomen, the recti being held stiff over the collection of pus. Of course, the swelling, if present, is dull, but very rarely it is big enough to give fluctuation, for you cannot get fluctuation through the ribs. You can often see it with X-rays; nothing shows up darker under X-rays than pus. This is of great value in diagnosis. We could not X-ray our patient, as she was too ill to be taken to the department. I want to remind you about one point which I am sure you do not appreciate enough; namely, that you may expect a subphrenic abscess to thrust the diaphragm up. It is more likely to do that than to push the liver down. When students are putting together the symptoms of subphrenic abscess for examination purposes, they talk about the liver being pushed down. That can rarely happen, because with most subphrenic abscesses one boundary is to be formed by adhesions with the abdominal wall. I told you there was a coin sound to be heard over the left lower ribs of our patient. That is rare. When it is present it is virtually conclusive of the diagnosis, because subphrenic abscess is practically the only condition in which there is air in the peritoneal cavity limited to the upper part of the abdomen. Usually there is no air, for that passing out from the stomach is quickly absorbed. Very rarely is there enough air and pus for splashing to be produced when you shake the patient. I have not pointed out to you where duodenal subphrenic abscesses are likely to occur. The space the abscess will be in, following ulcer of the duodenum, will depend upon the position in the duodenum occupied by the ulcer. As many ulcers are close to the pylorus, duodenal subphrenic abscess may be to the left of the suspensory ligament.

Now we come to the symptoms of the complications which most of these patients get. You are not surprised to learn that in more than half the cases there is trouble in the chest. The inflammation spreads through the diaphragm, and therefore the first thing that happens is some pleurisy. After our patient had been in the hospital ten days, we found she had increasing dulness in the left pleural cavity, and that was due, as the operation showed, to pleural effusion, just as we should expect. If we had left it, soon an empyæma would have formed. So it is not uncommon to get empyæma secondary to subphrenic abscess. Later, there would have been consolidation of the lung, and pneumonia and bronchitis. It is very necessary to bear this in mind, because over and over again in a patient who has been ill and has been examined pneumonia has been detected, or pleurisy, and the doctor has been content with detecting that, overlooking the fact that these signs are secondary to subphrenic abscess. If the case is very septic the lung may become gangrenous. The chest signs are of course on the same side as the subphrenic abscess.

To the surprise of many gentlemen here, when the patient came in, although we knew she had perforated gastric ulcer, we did not operate at once. We did nothing for a fortnight since the perforation had occurred. The reason of that is this: You see what an irregularly-shaped space the perforation had occurred into. Notice also that the ulcer is not near the pylorus, so that the abscess had begun to form to the extreme right of our space. Probably it would have been hopeless to try to find that abscess when the patient came in. Even if we had found it and tried to drain it, the recent adhesions between the wall of the stomach and the anterior abdominal wall might have been ruptured at the operation, and then we should have had to deal with general peritonitis. It is much sounder medicine when you have made your diagnosis of subphrenic abscess to leave the patient alone for at least a fortnight after its commencement. Nothing adverse happened to our patient, although she lay in bed with a hectic temperature and increasing leucocytosis. At the end of the fortnight the pleurisy was apparently increasing, so an anæsthetic was given, and Mr. Steward took away a rib from the lower part of the left chest. We then saw the pleuritic fluid. We hoped that if we put a needle through the diaphragm we should come down on the pus. But we did not; clearly we were too early. That pus had not come far enough to the left from the original perforation for us to reach it. So the patient was put back to bed, and we waited a fortnight later. Then again she had an anæsthetic, and a needle was put in and pus was hit off. Mr. Steward then made an opening through the diaphragm and drained the pus through the original wound which he made when he took away a piece of the rib.

The lesson to be learnt from that case is, never be in a hurry. If you explore too soon it may be very difficult or impossible to find the abscess, as it is deep in and small, further, you may break down recent adhesions. We had to wait three weeks. Also notice that the woman was not needled without an anæsthetic. Cases have occurred in which a patient has had the needle put in and pus has been found without an anæsthetic, and the pus has afterwards tracked along the course of the needle and set up profuse inflammation, and further, not infrequently the surgeon has had great difficulty in finding the abscess, although the needle found it the day before. It is much better to give an anæsthetic, put in a needle, and then if pus is found the surgeon can then and there open the abscess along the course of the needle, for owing to the irregular shape of the space the finding of the pus may be very difficult. You do not usually run much risk of giving the patient a pneumothorax, for generally by the end of a fortnight pleurisy has closed the pleural cavity at the lower part of the chest, or the abscess has pushed the diaphragm up so that it is in direct contact with the chest wall, so that generally at the end of a fortnight you may put a needle through the lower costal spaces without doing any harm to the pleural cavity. If you wish, from what you think to be the position of the abscess, to tackle it not through the chest, but through the abdomen, you must not use a needle at all, because by it you may infect the peritoneal cavity. You must lay the abdomen open and deal with the abscess as you would any other collection of pus inside the abdominal cavity. Once more let me remind you to wait at least a fortnight or more from the date of commencement of the formation of the abscess before you try to find it.

I think this woman was unfortunate in refusing operation when Dr. Warner gave her the chance of it when the original perforation occurred, because then a suture could have been put round the hole in the stomach, and the case could have been dealt with as an ordinary perforated gastric ulcer. Any adhesions then present must have been slight in comparison with those now present. The stomach is now firmly adherent



Christmas Concert Posters.

to the anterior wall, and probably the liver also, so that it is puckered up, and she will probably suffer much from indigestion. Inasmuch as the treatment of perforation when it occurs is to open the abdomen as quickly as possible, these cases will, we hope, get less. And as acute appendicitis is dealt with earlier than it used to be, these abscesses on the right side will get less. It is true that the hepatic abscesses will probably continue, but we do not see many of these in this country, and they are not of the same danger as the others, because they are extra-peritoneal, coming between the layers of the coronary ligament. I ought to have mentioned that one reason why the pus tends to collect on the right side of the abdomen secondarily to appendicitis is, that if it tracks to the side of the spine, and once gets over the top of the kidney as the patient lies in bed, it will lie in the renal fossa, because the kidney forms the lower part of the fossa in which the pus could easily collect.

The question was asked at the bedside whether there was any chance of this patient getting well without an operation, whether, owing to the difficulty of dealing with the abscess, we were justified in operating. Undoubtedly we were. If it had been left alone she would have run great risk of having an empyæma, pneumonia, and possibly gangrene of the lung, or she might have died from exhaustion due to the abscess. We could not depend on it rupturing spontaneously, because that event is so rare. Out of a series of cases that did so, eight burst into the stomach, four into the bronchi, three into the left pleura, two into the right pleura, two into the colon, two through the skin, one into the peritoneal cavity, and one into the intestine. It is not a very serious matter for it to burst into the stomach, or into the colon, or through the skin, or through the intestine. These accounted for thirteen in all, so that out of twenty cases thirteen burst in a direction that did not lead to great danger. Those which burst into the pleura, the bronchus, or the peritoneal cavity must, however, have put the patient in great danger. I mention these figures not because you are to leave these abscesses indefinitely for weeks to burst naturally, but because you should know that if during the ten to twenty days that you are waiting for the abscess to come near the surface it should burst, it will probably burst into the stomach or intestine, so that you hardly increase the risk by waiting.

The difficulty of diagnosis may be extreme. You have first to decide, is the trouble primarily empyæma, or is it subphrenic abscess? Theoretically nothing could be easier, because subphrenic abscess must be dome-shaped on the top, and you can percuss it out, or see it with the X-rays. But practically the difficulty is often very great, because by the time there is a big enough abscess for you to think you might percuss it out as dome-shape, there is generally some pleurisy, with fluid or pus thrown out as the result of the pleurisy, and that fluid makes the upper margin of the dulness a straight line. But a thing which will help you is that empyæma usually compresses the lung, and therefore an increase in the size of the chest is rare. But subphrenic abscess, when it has been left for some time, gives you a larger measurement round the lower ribs on the affected side. X-rays may or may not help you; they will not help you much if there is empyæma and subphrenic abscess, but if there is only a subphrenic abscess, or only empyæma, the position of the pus by X-rays will sometimes help you. Another point which will often help you is that if you put a needle through more than one intercostal space, and at the upper puncture you find clear fluid and at the lower puncture pus, there is almost certainly subphrenic abscess. Your lower puncture has entered a subphrenic abscess; your upper one has drawn off clear fluid due to pleurisy, secondary to a subphrenic abscess.

Lastly, remember that often people with pneumonia or empyæma refer their pain to the abdomen.

Dental Notes.

THE Dental School is indebted to Dr. C. A. Achner, a student, for the presentation of about one hundred stereoscopic slides and photographs. These show the human jaws and teeth at various periods of life from birth to old age, and should prove very useful for reference and teaching purposes.

Papers by Guy's Men.

J. M. Fortescue-Brickdale, M.A., M.D. Oxon. Hyoscine and the Mydriatic Alkaloids.—*Bristol Medico-Chirurgical Journal*, December, 1910.

W. C. Swayne, M.D. Lond. Obstetrics.—*Ibid.*

Guy's Hospital Debating Society.

A MEETING of the Society was held in the College Smoking-room, on Saturday, December 17th. Mr. E. A. Penny was elected to deputize as chairman. The motion before the House was:—"That in the opinion of this House lying is not only necessary but laudable."

Mr. MILLER, speaking for the proposition, said there were three ways in which this subject might be treated. It might be discussed from the ethical aspect; it might be lightly dealt with; or it might be considered purely from the point of view of the medical man and his patients. It was a usually accepted rule that right conduct was something that resulted in benefit. Lying frequently resulted in benefit. How, he asked, should we define a lie? A lie was a statement made with intent to deceive, either completely or partially. He quoted Dr. Johnson in support of the view that under some circumstances lying was certainly right procedure, citing the instance of the murderer in search of his victim. Lying was, further, a means to an end. Politicians frequently had to get down to the level of their constituents, or, in other words, employ bad means to a good end. Johnson said that you should never lie to a sick patient; with this all present would disagree. The education of the young would be an impossibility without a certain amount of lying. There was also the lie necessitated by conventions, which we could scarcely do away with. Finally, he urged those present to have the courage of their convictions and support the motion.

Mr. HEATON, opposing, said that all the outstanding immoralities had been and could be treated in a favourable light. Suicide had been lauded as Heroism; murder approved as a noble act of revenge; prostitution supported on the grounds that it was a shaking-off of conventions. Lying, too, was no exception; it was, in fact, a universal favourite. The view, that the end justified the means, he considered quite untenable. On grounds of principle, and in support of that great force, Honesty, he opposed the motion. Few, he continued, would say that the truth must always be told. In moral, as in natural laws, one force must be submitted to another. The justification of lying was usually rather an apparent than actual one. The true criterion was not the act, but the motive; and the motives for lying were generally bad. In regard to the lies told by doctors to their patients, the results were not infrequently disastrous. The motive there was often selfishness, a desire to avoid inconvenience. A second motive for lying was fear; it was on account of this that Emerson had said, "Always do what you are afraid to do." Dishonesty was an ugly word. The liar was just as dishonest as the thief. The white lie, by some called tact, he could accept with limitations; the right lie was very rare; the polite lie was a futile conventionality that deceived no one; the slight lie was the common one, the easy lie; and the principle of doing what is easiest was bad.

Mr. MARSHALL, jumping to his feet, declared that he was there to defend all lies, with the exception of the stupid lie, which was beneath his contempt. He had no patience with those George Washingtons and weak-kneed, pale-faced be-trousered bipeds who crawled about the face of the earth incapable of telling a lie. It has been said, "All men are liars," and truly lying was one of the noblest attributes of the race. The hon. opposer had said that lying was easy; nothing was more difficult. The fool could not be a liar, vide the proverb "in vino veritas." The hon. opposer had also said that it was the motive and not the act that should be considered. True; it might be from the highest motive. People talked of "being accused of a lie." To be accused of a lie was to show that the lie had failed. The "splendide mendax" was a type to be admired. Where, he asked, would the charm of childhood be without the lie? Art for art's sake, was his motto. A good liar was a joy for ever, and lying the most useful attribute of a civilised society.

Mr. WEBB maintained that there were no exceptions to be made in regard to lying. All lying was unnecessary. He considered that there was no necessity to lie to the murderer in Dr. Johnson's instance. Why not tackle the man or call the police? He pointed out that the polite lie was not made with intent to deceive. He considered that we were in danger of losing all idea of the existence of truth. Lying was definitely forbidden by all the great religions, and in the days of chivalry was viewed with abhorrence. He regretted that lying was becoming more common in our public schools, but urged that it was inherent in human nature to search after truth.

Mr. GATLEY expressed it as his opinion that lying was often justifiable. Suppose, he asked, that a man were asked by an exceedingly plain girl if he thought she stood a good chance of getting married? He would either have to tell a lie or be brutal—brutal to a woman. Everyone would prefer to tell the lie. He could see no objection to the polite lie to one's host, or to one's patient, if the lie were going to increase the happiness of the person in question.

Mr. RYLE confessed to a great admiration for the habitual and consistent liar, but at the same time considered him entirely pathological. It was pleasing for once to be able to call one's opponents in a debate liars without being called to order. He considered the seconder of the proposition an awful liar, but (on the objection of an hon. member) suggested that "splendide mendax" might be a preferable term.

MR. NEVILLE COX, backed by the authority of Oscar Wilde, whom he quoted at some length, appealed for a renaissance in the art of lying. He entirely disagreed with the opposer when he said that lying was easier than telling the truth. The Debating Society, he pointed out, was a veritable home of lies, since its members were so frequently compelled to support opinions with which they entirely disagreed.

MR. GODDING considered that a patient's condition was often rendered more serious by telling him the truth. The truth so often rendered him a coward.

MR. STOUT, in an amiable fashion, sought to effect a reconciliation between the opposing parties. He considered that proposers and opposers were alike honest. Lying was certainly honest and honourable under certain circumstances. Both sides of the House were really in agreement.

MR. ROOK, with his inimitable "patter," spoke in support of the proposition. The seconder of the opposition had been altogether absurd, in fact, ridiculous, you might almost say futile, in his statements in regard to Johnson's murderer and the policemen. There weren't any policemen. The idea was absurd. It was all very well to talk about the doctor and his lies, but, after all, the poor chap had to earn a living somehow. (The speaker subsided breathless.)

MR. HEATON'S reply was brought to an abrupt conclusion by an interjected and extremely bare-faced bit of mendacity on the part of Mr. Stout.

MR. MILLER having replied, the Chairman summed up. A show of hands was then taken, and the motion found to be carried by 8 votes to 5.

The meeting concluded with stirring speeches of thanks to Mr. Penny for taking the chair.

At the Astley Concert.

This story is full of sentiment. That does not mean that it is sentimental. If there are any of you, my Readers, who shun sentiment as you do the Devil, and willingly and wilfully ally yourselves with all things insentient, I pray you read no further, for that, indeed, were blasphemy. But those of you who know will understand, and understanding will, perhaps, be glad.

* * * * *

"I cannot tell you why," he cried, "but all this fun and frolic of Christmas week always makes me inexplicably sad."

"It is the passing of the Old Year," she answered.

"But we are glad."

"Because we are sad. There is nothing so true as those lines of Shelley's—

Our sincerest laughter
With some pain is fraught;
Our sweetest songs are those that tell of saddest thought.

Have you never realised that beneath the sparkling ripples of our smiles there runs always that strong silent under-current of feeling that is at once our hope and doom?"

"Our hope and doom?"

"Yes. The soul of man is happily a paradox. He is glad when he is sad, and sad though he be glad. He knows, none better, that man is but a passing phase, and he is sad. But he is glad, for after man ——"

"Is what?"

"I cannot tell. Nor do I care. Yet this I know, that the gladness of our sadness will be as nothing when compared with the sadness of the gladness still to come, although the life of man is worth the living, too. But we are wandering."

"We are," he said, and carefully lit a cigarette. Then, after a brief pause: "But what is the good of it all?"

"Of what? Of life?"

"No. Of all this fun and frolic of Christmas-tide? These teas? These concerts? The Niggers? The theatricals? The Christmas trees? Yes, even the children's romps and shouts? What is the good of it all? A brief week of existence, and then—— the bonfire! Everything goes that way. Everything must. Then what is the good of everything?"

"Everything?"

"Everything."

"Ah! I hope you will remember that. But everything is not all. If everything goes, nothing remains. And even nothing is something! Yet, joking apart, what would the year be without its Christmas week? The same monotonous round from hour to hour. The petty vanities, the little jealousies, the foolish quarrels, the hateful struggles of every day. No restful caravanserai. No oasis to escape to from the blinding sands of the desert. Think of all that 'nothing' will mean."

"We should get used to the loss, I'm sure. Most of us usually do. Many of us, in fact, would welcome the novelty as we did the barren wards this year."

"An ugly innovation," she cried.

"But nobody noticed the change. People enjoyed themselves just as much as if the wards were packed with evergreens. And it was most convenient. No anxiety. No trouble of any kind. No restless nights of halting inspiration. No painful surprise. No rivalry. And, best of all, no need to rack one's brains for compliments. Yet imagination was at work. Poetry was in the air. Why should we always be so very materialistic? Why shouldn't one imagine that one had eaten one's plum pudding without having to swallow the indigestible stuff?"

"Yes, but the spirit of the thing?"

"Brandy makes it worse," he said, drily. "If I must have a bit of the pudding, give me a piece, please, before you set the blue flames playing."

She shrugged her shoulders and was silent.

"Oh! I know I am perfectly aggravating to-night. I am sorry. I should never have come."

"You poor old dear!" she said, and slipped a hand into his.

They were at the Astley Cooper concert, He and She, seeing all things, yet unseen by all. Together and alone. Together in a corner undiscoverable. Alone in a room full of people. And yet? And yet? He wondered why he had come.

It was the last, the very last, concert of the year. The grand climax of a glorious week! Some ass of the year before had called it "the happiest, the jolliest, the noisiest concert of them all." It was certainly the noisiest, he thought, but he wondered why he had come.

Everybody seemed to be merry and bright. Everybody appeared to be enjoying himself. With quip and jest, with laugh and song, the happy hours were whiled away. It was so all through that Christmas week. Smiles everywhere. Happiness was visible, radiant. The air was electric with gladness. All the waves in the ether of space did vibrate for very joy. And yet? And yet? He! The Chronic! He wondered why——oh, damn!

"Why did you ask me to come?" he cried, turning almost fiercely to the girl beside him. "You might have known——"

"Hush! I'm glad you've come," she said. "You will be glad, too, later on. The Spirit of Love is abroad to-night, the Spirit of Good Will amongst men. It will touch your life. It will make you whole. It will fill your heart with gladness once again. Oh! don't you realise that this is your Watch-Night Service? You have come to say farewell to the old year of darkness. You have come to burn all your regrets, your failures, your disappointments in the great fire of Comradeship, the bond-fire of Guy's. What if you have been a failure? What if you have been among the broken things on Life's great highway of the Past? Are you not a Guy's man still? To-night within that magic circle you will grip again the hands of Guy's men everywhere. They will give you new hope, new courage. Their success will be yours. Their strength. Their power. Their failures, too, but what of that? Yours will be the common burden. To-night all the glory of the Past and the greater promise of the Future will be yours. You have come to greet the dawn; you have come to gain new life for the brighter day. Ah! can't you understand? Don't you know, aren't you aware of all that of which the Bonfire is but a symbol? And won't you let the magic work? Won't you open your life, your heart, your soul to the mystic magic of these fleeting hours? Everything must go to the Bonfire, you said. Everything. Come, then, cast away your mantle of gloom. Be glad. Make merry. For the night is far spent, and the New Day is at hand!"

He was watching her with a curious smile. Her eyes were flashing. Her whole face was aglow, throbbing, with some new mysterious light. Again he wondered. Was there anything at all in the witching power of the Bonfire? Was there something, after all, in the Brotherhood of Guy's?

"Oh! I can't believe it," he cried. "I haven't got your imagination, and I don't understand this thing of which you speak. Who are the members one of another of this mystical Brotherhood, this wondrous Order of which you always dream? Listen to those fellows shouting behind, are they of your Choir of Seraphim? Listen!

"Then get away from that window,
My love and my dove!
Then get away from that window,
Don't you hear me cry?
You may come some other night
When there's going to be a fight,
And the razors are flying in the air."

She smiled a little sadly.

"And what is this mystic magic of which you have spoken? The mystic magic of these fleeting hours! Why does it not work on me? Why am I dull and gloomy when all the other fellows are drunk or gay?"

"Drunk? Yes, drunk with the Spirit of Good Fellowship! Oh! how I wish you would drink from the same source, too. Where are the virtues of tee-totalism if they fill you with black doubt and fear, and leave you dull and gloomy?"

"And what, pray, are the virtues of black stout and beer?" he asked, with a smile.

"Don't be silly," she said. And they both laughed. The spell was working after all.

A little later he was almost gay. Someone was singing—

When you've got to know
Some delightful pro.
For a month or so——
Then she's got to go
To another ward away,
You will find you often stray
Over there, discreetly picking out
The Sister's holiday!
Oh! those of you who've never used your eyes,
I can tell you we can always sing at Guy's:
There are nice girls everywhere,
There are nice girls everywhere,
From Miriam to Pat. and Sam.
You can always find an attractive lamb;
Any costume of blue or lilac
May disclose a contour rare,
Matron's a sport of the very finest sort,
She puts nice girls everywhere!

The chorus ended amidst general applause, and loud shouts of "Encore!" from the choristers behind. The jolly rollicking lilt of the song went ringing through his brain, and echoed and re-echoed there.

He looked at the girl at his side. She was sipping her coffee. She was dressed in blue. Gallantly he raised his cup, and with a happy laugh, he whispered:

Here's to the prettiest girl,
Here's to the wittiest girl,
Here's to the truest of all who are true;
Here's to the sweetest one,
Here's to the neatest one,
Here's to them all in one—here's to my Blue!

The spell had worked. The New Day dawned with a woman's sweetest smile.

* * * * *

"*Prosit Neujahr!*" she said, with a clasp of the hand as they parted.

"*Prosit Neujahr!*" he answered, gaily, and hastened to make ready for the "burning."

S.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Human Anatomy for Art Students. By Sir Alfred Fripp, K.C.V.O., C.B., M.B., M.S. Lond., F.R.C.S. Eng., and Ralph Thompson, M.B., Ch.M., F.R.C.S. Eng. With drawings by Innes Fripp, A.R.C.A. Lond., and an Appendix on Comparative Anatomy, by Harry Dixon, M.S.B.S. (Seeley & Co.) Price 7s. 6d. net.

He would be a bold man who would take upon himself to quarrel with two such authors, in collaboration, as Sir Alfred Fripp and Mr. Ralph Thompson, upon a question of Anatomy. Their book may therefore be regarded as a thorough course of instruction in the bony and muscular structure of the human frame in so far as this concerns the Art Student, and of the movements and gestures of the body in their relation to emotional expression, demonstrated with all the simplicity consistent with scientific accuracy, and enlivened by much personal observation and inference.

With regard to *one* assertion, we may venture to retain a dissentient opinion, when on page 101 it is stated, without any qualifying reservation, that "the ring and index fingers are commonly of equal length." It is interesting to recall that Casanova, in his Memoirs, relates how he quarrelled while in Madrid with Antony Raphael Mengs, the court painter of the period, on this very question of the relative lengths of index, medius, and ring fingers as they were depicted in the latter's paintings.

Leaving pure Anatomy, the authors devote an interesting chapter to the discussion of the action of the facial muscles and the gestures of the body in relation to the expression of the emotions; though no scientific investigation can ever relieve the student of the necessity for minute and constant observation at first hand.

The concluding chapters deal with the relative proportions in the sexes, and with the varying proportions at different ages of the same individual. One of the latest of the many canons of human proportions that have been formulated from the days of POLYCLEITUS—that of Professor John Marshall—is cited, with the necessary warning against its too literal application in all cases.

An excellent rule-of-thumb standard of proportion is provided by the authors in the list which indicates the mid-point of stature at birth, at two years of age, and at ten, and in the adult. Inasmuch, however, as this leaves unnoted an important period of growth of some ten to fifteen years between the ten-year-old and the adult, we may assume that the authors have been unable to discover a firm enough foothold on scientific fact to lay down any rule for the delineation of adolescence beyond stating, elsewhere, that "the lower limbs may appear almost ridiculously long." The youthful figures, which constitute the greater part of the work of PRAXITELES and his school, have surely never been dismissed as "almost ridiculous" in their proportions! Lest we should seem to lay too much stress on this point, it would be well to remember that the "LAOCOON" was at one time the most admired of sculptures in the world, despite the adult proportions which have been mistakenly bestowed on the two youthful figures. The limited space at his disposal prevents Mr. Dixon, in his Appendix on Comparative Anatomy, from doing more than stimulate curiosity in an undoubtedly fascinating subject.

Mr. Innes Fripp contributes a number of admirable illustrative pencil drawings throughout the book, though he appears more happy elsewhere than in the series in which he depicts the emotions. The book is further illustrated by the inclusion of thirty excellent photographs from the nude.

The Ship Surgeon's Handbook. By A. Vavasour Elder, M.R.C.S., L.R.C.P. 2nd edition. (Baillière, Tindall & Cox, London.) Price 5s. net.

This book will be remembered in its former edition as a valuable guide to the intending ship surgeon, on all matters relating to his enlistment, equipment and practice, and his legal and social responsibilities.

The present issue will be found to be reinforced by chapters dealing with inspection work among the United States immigrants, and with the mode of keeping the medical "log book"; and, in addition, an interesting article on customs and etiquette aboard ship. The handbook may, therefore, be recommended to any medical man who contemplates taking up this branch of practice, for it will provide him with a great deal of information on the subject which he would find it difficult or even impossible to procure elsewhere.

Sport.

Rugby Football.

GUY'S v. CATFORD BRIDGE.

It was a matter of some difficulty, so many players being still away, to raise a team for this match at Honor Oak Park on December 31st. Still, 15 men were forthcoming, and right well they did, winning by the margin of 1 goal 2 tries to 1 try. T. D. Stout found it impossible to get down before half-time, so that till that period Guy's played 14 men only.

After some good work on the part of Medlock, Cockrem went over with the first try. Medlock made an excellent attempt to goal, but just missed. After another excellent burst in conjunction with Stranack, Medlock kicked on, but the ball bounced out of reach of the Catford full-back, and three Guy's men were waiting to field it. Catford dribbled back. Again Medlock and Stranack outstripped the field; the former, well placed, was thrown out of his stride: Stranack dashed on, but Lambert just reached the ball first. Good passing by the Guy's three-quarters worked the ball to Stringer, who dashed clear and ran right to the posts for a good try. Hind easily goaled. Medlock now went full-back; Pritchard came up half, and made way for Lacey in the three-quarter line. Medlock was suffering from a strain, but it did not debar him from playing a plucky game at full-back.

The second half had been about ten minutes in progress, when Saner was rewarded for much good work by getting a try. Hind, who took the place, made a great shot, but the wind just took the ball outside the uprights. The Christmas festivities now told the tale: the Guy's forwards were done for, with one or two brilliant exceptions; they could still push in the tight, but some could scarcely "trot," much less gallop, consequently Catford had more chances, only one of which they turned into account on the stroke of time, when Lambert gained an unconverted try wide of the goal posts. Team:—

GUY'S.—G. E. W. Lacey (back); L. B. Stringer A. H. Harkness, C. B. Pritchard, G. C. Covell (three-quarters); J. G. Saner, C. H. Medlock (halves); G. R. Hind, W. S. Stranack, T. D. Stout, R. Stout. R. Liebson, C. B. Cockrem, V. Glendining, O. Parry-Jones (forwards).

REMARKS.—Most of the men were obviously short of training, which is scarcely to be wondered at considering the season of year. The fact that they turned out at all is a matter of congratulation. Every man played as hard as his "wind" would let him. Cockrem was excellent, constantly on the ball, and by no means disgracing the County jersey which he honoured by wearing. Medlock again proved himself a good field half; just a little more passing would add greatly to his constantly improving game.

Papers, etc., Received.

The Diagnosis of Prolonged Pyrexia. By Frederick Taylor, M.D., F.R.C.P. An Introductory Address read before the North-East London Clinical Society on October 13th, 1910. Reprinted from the *Medical Press and Circular.*

The Mesencephalic Fifth Root, the Dorsal Vago-Glosso-Pharyngeal Nucleus, and the Question of an Endo-neural Afferent Ganglionic System. By Leonard J. Kidd, M.D. Reprinted from Review of *Neurology and Psychiatry.*

PERIODICALS RECEIVED.—The Hospital; The Clinical Journal; The Nursing Times; The Prescriber; St. Mary's Hospital Gazette; South African Medical Record; St. Bartholomew's Hospital Journal; The Manchester University Magazine; St. George's Hospital Gazette; St. Thomas's Hospital Gazette; Middlesex Hospital Journal; Calcutta Medical Journal; University College Hospital Magazine; Charing Cross Hospital Gazette; London Hospital Gazette; U. C. L. Union Magazine; Polyclinic; Paris Médical.

From the Gazette's Special Pathologist.

NOTICES.

ALL specimens—particularly those of solid tissues—should be accompanied, if possible, by a short clinical and post-mortem history, and a postal order for 2s. 6d. An extra charge of 6d. per slide is made when prepared sections are to be forwarded.

Directions to be followed in sending *Diphtheritic Membrane*;—Remove as much of the membraneous exudation as possible with a pair of forceps, which have been sterilized by boiling water. Place the exudation in a small, perfectly clean empty bottle, with a well-fitting glass stopper, and forward without delay. No preservative fluid should be used. The specimen must be accompanied by a Postal Order for 5s. A telegram will be despatched immediately the examination of the specimen is completed.

Diphtheria specimens are to be labelled *Immediate.*

Specimens, Letters, and Postal Orders should be addressed to the MANAGER, Gazette Office, Guy's Hospital.

Births.

LAYTON.—On December 31st, 1910, the wife of T. B. Layton, M.S., of a son.

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Passim.

MEMBERS of the medical profession will be pleased at the verdict in the recent action for criminal negligence brought against a well-known surgeon. The trials of the surgeon and physician are many, and it is very hard to be faced at the end of one's efforts with an action such as the one we have mentioned. The jury system is, no doubt, in its ultimate results, an extremely just one; but one doubts whether a jury of laymen would in every case be in the position to form a correct judgment on such extremely technical matters. It is difficult to suggest an alternative; but we doubt whether the majority of such cases would ever come before a court if they were first submitted to a committee of jurists and medical men.

WE publish elsewhere in our issue a further list of contributions to the Testimonial to Miss Newton, and the generous response with which it has been met must be a matter of congratulation to Guy's men. The original intention was to get together a sum of five hundred pounds, and if those who intend subscribing, and have not yet done so, will send in their contributions, this will speedily be accomplished. This representative list must be satisfactory evidence to Miss Newton of the esteem in which she is held, and it is to be regretted that she cannot hold the post she has filled so efficiently for a little longer.

THE anatomical mind is at present in dire distress. Skill, keenness, interest, all are there, but material is sadly lacking! The causes of this are multiple, ranging from old age pensions to that false sentimentality which is such an increasing evil in modern life. The future, if such a state of affairs continues, has romantic possibilities. The supply of any article has an invariable way of following the demand, and the age of the "body-snatchers" transposed to modern times has, we must confess, great speculative interest for us.

SERIOUSLY, however, it seems absurd that the ancient prejudice against dissection should survive in these utilitarian days, and it is a poor reward to Medicine for her service to humanity to starve her followers at the outset of their search for knowledge. Anatomy is indispensible in the study of scientific Medicine or Surgery, and what is as yet merely an inconvenience, will rapidly become a serious menace to the proper study of these sciences.

THE forty-sixth annual dinner of the Oxford and Cambridge Club was held on January 13th in the Oak Room at the Trocodero Restaurant, Dr. Hertz in the chair, and thirty-five members were present. During the evening Dr. French and Messrs. Irvine, Poulton and Ozanne kindly contributed songs and Mr. Depree accompanied. Dr. Hertz, in an excellent speech, proposed the health of the Club, and Mr. Saner that of the Chairman. Dr. Pitt proposed "the Guests;" Dr. Ramsden replying for Oxford and Mr. Hopkins for Cambridge University. Messrs. J. G. Saner and Reynell were elected as secretaries for the present year. It was proposed that a dinner should be held every fourth year to include all old Oxford and Cambridge men who have been or are at Guy's, and it was suggested that the first dinner should be held in November or December of this year so that it should not clash now or in the future with the Biennial Dinner.

IT was announced in a previous Passim that an attempt would be made to write a history of sport at Guy's, and that a start was to be made with Rugby Football. Past and present Guy's men were requested to communicate to the Editor any information of interest on the subject that they might have. Several letters have already been received, but we would again ask those who are possessed of information on the subject to communicate with us.

THE "Ladies' Night" of the Guy's Hospital Debating Society will be held on Saturday, January 28th, when the motion that "This House disapproves of the admission of Women to the Medical Profession" will be discussed. The meeting will be held in the College Smoking Room at 8 o'clock, and the President, Dr. Shaw, will take the chair. Mr. Ormond will propose and Mr. Barrow-Clough will second the motion, while two ladies from the Royal Free Hospital will propose and second the opposition respectively. We would remind readers that all members of the Clubs' Union are members of the Debating Society, and are entitled to come and to bring friends. It is hoped that there will be a large attendance, this being the first time that ladies have taken a leading part in the debates.

THE sum of £20 12s. 2d. has been handed over to the hospital funds as the result of the sale of Christmas Greeting Cards. These cards are very kindly supplied gratuitously by Messrs. Ash & Co., Ltd., so that the whole amount realized by their sale can be devoted to the hospital funds.

Guy's Hospital Physiological Society Dinner.

The sixth annual dinner of this Society was held in the College on Wednesday, January 18th, forty members being present. As is usual at the dinners of this Society the proceedings were of a thoroughly lively nature, and were much enjoyed by all present. The after-dinner proceedings were opened by a song by Mr. Bevan-Brown, who demonstrated successfully the persistent activity of the music centre. Mr. Hughes, in proposing the Society, related a dream, in which he had the good fortune to see the heads of the anatomical and physiological departments refused admission at the golden gates, while he himself was fortunate enough to pass through. He extolled the Society, remarking on the desirability of not having to keep to the point in the discussions. Mr. Evans responded for the Society, and Messrs. Davies and Hancock contributed songs. Mr. Thompson, in proposing the President, remarked on the difficulty of getting a physiologist to argue (!), and congratulated Dr. Pembrey on the excellence of the meetings. Mr. Marshall, who seconded, regretted the loss of his youthful belief in the reliability of teachers, and maintained a splendid scepticism as to anything that was told him by anybody. Mr. Hancock proposed the Vice-Presidents in a delightfully inaudible speech, and Messrs. Thompson, Hughes, and Ryffell replied individually. Dr. Pembrey, replying to the toast of his health, attacked the proposer of it in characteristically physiological manner, after which song and speech succeeded each other in the way which goes to make an evening such as this a success. The Secretary, Mr. Evans, is to be congratulated on making this dinner as enjoyable as the previous ones of this most flourishing Society have been.

At Dr. French's Friday Out-Patients.

An Unusual Case of Aortic Disease; probably Congenital Coarctation.

A small girl, Jessie B., aged 10, was brought to the hospital by her mother on account of what were described as fits, of which it was stated that the child had had twelve during the last four years. The mother herself had never seen these fits, which had all occurred when the girl was out of doors; the only account of them obtainable was from the grandmother, who had seen several of them when she was accompanying her grand-daughter back from school. At the time the fits come on, the child herself says, she has a feeling as though a large knife were going in at the top of her head and coming out in front of her heart, shortly after which she screams, falls forward on to her face, and remains in a dazed, but not absolutely unconscious, condition for an hour or an hour and a half. During this time there is no struggling, and the general appearance of the patient is not particularly abnormal, except that she is not fully conscious; each so-called fit has been of the same type, but their precise nature is not clear. They did not sound like epileptic attacks, but rather like those of syncope. In support of the latter view is the condition of the heart.

The child had never had rheumatic fever, and looked remarkably sturdy and well thriven. The mother was quite well, and had never had rheumatic fever, nor was there any history of acute rheumatism in her only sister. The patient's father died of diabetes and phthisis; he had seven brothers and sisters, none of whom gave any rheumatic or cardiac history. The pulmonary signs seemed perfectly normal, but the following very striking abnormal physical signs were presented by the chest:—The impulse of the heart in its normal position, namely, in the fourth left intercostal space in the left nipple line. Percussion detected cardiac impairment of resonance for about an inch out to the left of the nipple line and also for a finger's breadth to the right edge of the sternum, but not upwards above the third left rib; although the cardiac impulse was not situated abnormally it seemed likely that there was an increased transverse diameter of the heart, due very probably to hypertrophy of the left ventricle. This was confirmed by the X-ray appearances of the heart. There was no thrill at the cardiac impulse, but over the base there was an extremely well-marked rumbling one, systolic in time, with its maximum intensity not in the second right intercostal space close to the sternum, as would be expected if there were stenosis of the aortic valves, but in the root of the neck behind the clavicular head of the right sterno-mastoid muscle immediately above the inner end of the right clavicle. This rumbling thrill, though felt here with maximum intensity, could also be felt all over both sides of the neck along the course of each carotid artery, as high as the angle of the jaw on the right side, not

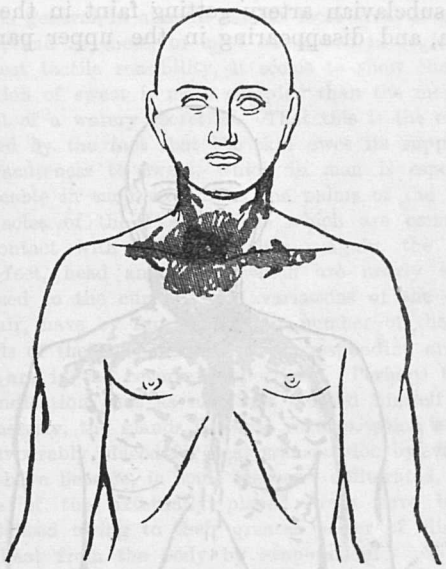


Diagram indicating the point of maximum intensity, and the direction of transmission of the thrill.

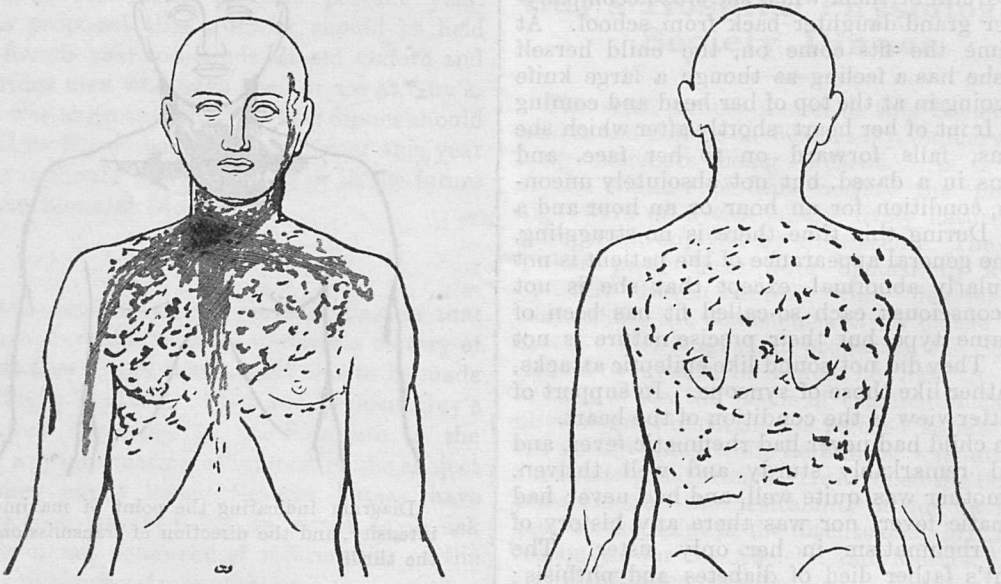
quite so high upon the left; also outwards half way to the point of the right shoulder along the course of the right subclavian artery, and similarly to the left along the course of the left subclavian artery, below the left clavicle, as far as the hollow in front of the left glenoid cavity; downwards the thrill, rapidly decreasing in intensity, could be felt close to the right border of the sternum, in the first right intercostal space to a moderate extent, and slightly also in the second right intercostal space. The distribution of this thrill is indicated in the accompanying diagram.

Corresponding with the thrill there was a rumbling systolic bruit audible all over the thorax front and back. The point of maximum intensity of this systolic bruit was precisely that of the maximum intensity of the thrill, namely, the root of the neck immediately above

the inner end of the right clavicle; it could be heard all along the course of the right carotid artery up to the front of the right ear; along the course of the right subclavian artery, right axillary artery and right brachial artery, half way down the right upper arm; along the left carotid artery up in front of the left ear and even in the left temporal artery, the bruit here being transmitted higher on the left side than on the right, though in the case of the thrill this was felt higher up on the right side than upon the left. The systolic bruit was also quite loud over the left subclavian artery getting faint in the left axilla, and disappearing in the upper part of left arm. Besides being transmitted along the course of the main arteries coming from the aortic arch in this way the bruit was audible all over the chest both back and front, though getting progressively less as one passed downwards over the sternum, although it was still audible in the epigastrium two or three inches below the xyphoid cartilage. This audibility in the epigastrium did not seem to be due to transmission of the bruit along the descending thoracic aorta and the abdominal aorta, because the bruit was not to be heard clearly over the latter, and instead of becoming fainter down the sternum and louder again in the epigastrium, as would be expected if the bruit in the latter position were actually transmitted along the aorta, the diminution in the bruit was steadily progressive from above downwards as though it were merely becoming inaudible by reason of the actual distance from its site of production.

The question of the character of the systolic bruit at the impulse of the heart was one of considerable importance, for if it were clearly a different bruit here to the one which was heard at the base, it would suggest that there was a mitral as well as an aortic lesion, and this would suggest that the disease was acquired and not congenital. Whether this was so or not was open to question in the present case, for whereas the basal bruit was loud and rumbling, it was never musical, whilst at certain times that at the impulse was definitely squeaky. This was thought to be the case one day by many different persons at Out-patients, though at another visit the squeaky character of the impulse bruit could not be made out.

As regards the diagnosis, it was easy enough to exclude the three commonest varieties of congenital heart disease; with pulmonary stenosis there would almost certainly have been cyanosis and clubbing of the fingers, neither of which was present in this case; in addition to which the bruit with pulmonary stenosis is nearly always much louder in the second left



Diagrams to illustrate the point of maximum intensity of the systolic bruit, its directions of transmission, and the wide area over which it was heard in front and behind.

intercostal space close to the sternum than anywhere else, and although it may be audible over a wide area of the thorax, it is not transmitted into the carotid arteries in the neck or into the arteries in the axillæ and arms. The same argument would serve to exclude perforated septum ventriculorum, the bruit of which moreover is nearly always loudest over the lower half of the sternum particularly at some point between the fourth right and left ribs. The strictly systolic time of the bruit would exclude patent ductus arteriosus with which the bruit generally runs through systole and diastole with a maximum intensity near the second sound, in addition to which with patent ductus arteriosus the bruit is heard loudest, as a rule, in the third left intercostal space, near the sternum, and not above the inner end of the right clavicle, as in the present instance. It is conceivable that the patient may be suffering from acquired aortic stenosis, but two strong arguments against this are, first, that the left ventricle does not appear to be materially enlarged, as it almost certainly would be if there were sufficient stenosis of the aortic valves to produce so marked and widely transmitted a bruit and thrill; and, secondly, with valvular stenosis both the bruit and the thrill would almost certainly have their point of maximum intensity near the inner end of the second right intercostal space, and not above the right clavicle, as in the present instance; nevertheless, that there is stenosis in the aorta seems clear, and if it is not at the site of the valves it would seem to be in the aorta just beyond the valves. The physical signs do not suggest that the condition is one of ordinary coarctation of the aorta, for this lesion is usually situated beyond the origin of the left subclavian artery, in which case neither thrill nor bruit would be transmitted, one would expect, so far along the right subclavian, right carotid, left carotid, and left subclavian as is here the case. It is suggested, however, that there may be coarctation of the aorta between the aortic valves and the origin of the innominate artery, and that this is the lesion in the present instance. It is noteworthy that there is neither anæmia nor polycythæmia, and that the development and the general condition of the patient is good, her appearance being that of a perfectly healthy girl.

PAPERS, &c., RECEIVED.—Clinical Journal; The Hospital; South African Medical Record; The Prescriber; Nursing Times; London Hospital Gazette; St. Mary's Hospital Gazette; Calcutta Medical Journal; Facts against Vaccination, etc.

Physiological Sociey.

A MEETING of the Physiological Society was held on Monday, January 9th, in Class-room 2. Mr. Layton occupied the chair, and 40 members were present. Mr. H. W. Evans read a paper before the Society on the "Secretion of Sweat."

The secretion of sweat differs from that of other important secretions in that it is of direct physiological value to the body owing to its subsequent evaporation being performed by means of the latent heat of the body. The distribution of the glands in man is general, in animals various local areas of glands occur, and as these, in most cases, are in regions of greatest tactile sensibility, it seems to show that the function of sweat is more complex than the mere removal of a watery secretion. That this is the case is proved by the fact that the skin owes its suppleness and acuteness to sweat, which in man is especially noticeable in such regions as the palms of the hands and soles of the feet, regions which are commonly in contact with external bodies. Again, the hands and feet, head and neck, which are nearly always exposed to the currents and variations of the external air, have by far the greater number of the total glands of the body, though the corresponding areas of skin are in the reverse proportions. Perhaps this is an indication that as man has clothed himself more extensively, the glands in those regions which are not so favourably placed for heat transmission by evaporation have become, in some measure, obliterated, whilst those of the externally placed areas have become specialised owing to their greater power of eliminating heat from the body by evaporation.

That blood pressure has no direct connection with the mechanism of secretion is shown by the fact that an amputated limb can be made to sweat on stimulation of the proper nerves. The mechanism is undoubtedly nervous, and the stimulus excites special centres in the cord, as may be easily proved by experiment. The most important stimulus is the presence of carbon dioxide in the blood. Thus, the close connection which exists between the respiratory and sweat mechanism is clearly visible—to each of them CO_2 is the stimulus.

Of the other functions of sweat, that of cleaning the body is of first-rate importance. In these days of hot baths and incessant washing, one is inclined to look down upon the navvy who only occasionally indulges in these unnatural ablutions; but, as a matter of fact, many labourers are kept clean and healthy owing to the fact that they occasionally work hard enough to produce profuse sweating.

The next meeting of the Society will be held on Monday, January 23rd, at 4 p.m., in Class-room 2. Mr. MacManus will read a paper on the "Physiology of Athletics."

Guy's Hospital.

Summary of Anaesthetics and Operations for the Year 1910.

THE number of cases in which general anæsthetics were administered was 5,799, and there were nine cases of spinal anæsthesia. Of the 5,808 administrations, 136 were for the purpose of dressings or examination, and 60 for extraction of teeth, while in one case three operations were performed under one anæsthetic, in 21 cases two operations were performed under one anæsthetic, in one case an operation and an extraction, in one case an examination and a dressing under one anæsthetic, and in one case no operation was performed, though the anæsthetic was administered. The total number of operations, therefore, was 5,632 in wards (Bright ward excepted), special departments, out-patient departments, and surgeries.

There were three cases of death under anæsthesia during the year, particulars of which are given in the Appendix.

Operations done on the medical side are entered under the assistant surgeons corresponding to the physicians or assistant physicians in charge of the wards, the appended Table showing how many operations are actually performed in these wards.

ANÆSTHETICS.

A.C.E.	2,264
Chloroform	707
Ether (including gas and ether)	1,486
Other anæsthetics, mixtures and sequences	1,342
Spinal anæsthesia	9
	5,808

ADMINISTRATION OF ANÆSTHETICS.

Administrator.	No. of cases.
Staff Anæsthetists	1,643
Mr. Symonds	4
Mr. Eason	8
Mr. Ormond	16
Mr. Steward	4
Mr. Fagge	2
Mr. Molison	127
Mr. Thompson	8
Resident Surgical Officer	19
House Officers	3,102
Clinical Assistants	459
Other qualified men	416
	5,808

OPERATIONS.

TABULATED ACCORDING TO WARDS AND DEPARTMENTS.

Astley Cooper	208	Addison	37
Cornelius	215	Mary	37
Lazarus	285	Stephen	44
Job	496	Esther	43
Naaman	273	Queen Victoria	394
Luke	305	Clinical	160
Patience & Samaritan	302	Isolation	11
Charity	318	Out-patients	1,021
Dorcas	291	Front Surgery	84
Lydia	320	Back Surgery	42
Martha	258		
Eye Wards	488		5,632

Turning to the general wards, it may be noted that the totals of operations are as follows:—

Surgeons	892
Assistant Surgeons	845
House-Surgeons and Assistant Surgeons	587
Surgeons' Dressers and Assistant Surgeons' Dressers	803
Resident Surgical Officer	195

The remaining 28 operations, bringing the total up to 3,350, were performed by other operators.

It should, of course, be remembered that all operations in wards by dressers and resident staff are performed under the supervision of the resident surgical officer or of the surgeon in charge, and that no account is taken of operations done either under local anæsthetics or without anæsthetics at all.

Operations in the obstetric department (Queen Victoria and Patience wards) number 412, of which 50 were performed under supervision by obstetric residents, 77 by the obstetric assistant, 282 by the obstetric surgeons and three by other operators.

The operations upon ophthalmic cases in the wards number 197, of which 34 were done under supervision by ophthalmic dressers, 30 by the ophthalmic house-surgeons, 14 by the ophthalmic assistants, and the rest, with four exceptions, by the ophthalmic surgeons.

There were 387 operations upon throat cases in Job and Ruth wards, 80 by the surgeon himself, 268 by dressers, 37 by the clinical assistant, one by the resident surgical officer, and one by the house-surgeon.

Aural operations in Ruth and Barnabas number 129, of which 73 were performed by the surgeons in charge 42 by dressers, and 14 by the clinical assistant and house-surgeon.

In the orthopædic department 20 operations were performed, 11 by the surgeon himself, two by the house-surgeon, and seven by dressers.

In the genito-urinary department 15 operations were performed, 14 by the surgeon himself and one by a dresser.

The operations in general out-patients number 415, nearly all of which were performed by dressers under the supervision of the assistant house-surgeon or the surgeon.

In the front and back surgery 112 operations were performed, two by the resident surgical officer, 25 by out-patient officers or house-surgeons, and the remainder by dressers.

In the special out-patient departments 17 operations were performed upon eye cases, eight by the surgeons and nine by dressers; 218 upon aural patients, one by the surgeon, nine by the clinical assistant, and the rest by dressers; upon throat cases 353, of which 343 were done by dressers and 10 by the clinical assistant; in the orthopædic department seven, six by dressers and one by the surgeon himself.

APPENDIX.

ELLEN BARGENT, æt. 18, was admitted into Dorcas Ward under Mr. Dunn on June 30th, 1910, for appendicitis. On admission, her pulse was 138, and her temperature 101°. She was in a collapsed condition, with a thin, drawn face, and sunken eyes. Her illness began four days previously, and she had suffered from repeated attacks of vomiting, with great abdominal pain. Laparotomy was performed by the resident surgical officer two hours after admission, the patient having received a hypodermic injection of morphine (1/6 gr.) with atropine half an hour previously. The appendix was found to be gangrenous and was removed; there was evidence of recent peritonitis. The anæsthetic employed was ether, administered by the open method; a house-anæsthetist was the administrator. As the wound was being sewn up the patient stopped breathing, and the pulse became imperceptible. Strychnine, ether, and adrenalin solution were given both subcutaneously and intravenously. The heart was massaged through the diaphragm, and ether was directly injected into it. Under these measures the heart-beat improved so that the pulse became perceptible at the wrist, but the patient still did not breathe. Artificial respiration and the administration of oxygen were kept up for two and a half hours, and a continuous injection of normal saline solution with adrenalin was given, 1½ pints being injected in half an hour. At the end of that time froth began to collect in the bronchi, the pulse became more feeble, and the heart presently stopped beating. By order of the coroner an autopsy was made by Dr. Spilsbury, and the finding of the jury was as follows, "Respiratory failure and suffocation due to septic absorption from appendix abscess, death occurring whilst under ether after operation. Natural causes."

WILLIAM FAULKNER, æt. 31, was admitted into Lazarus Ward under the care of Mr. Lane, on July 25th, 1910, suffering from general peritonitis, symptoms of which had been present for six days. Two hours after admission he was taken into the operating room, having then a much distended abdomen, with cold extremities, and a rapid feeble pulse, and frequent vomiting. Ether by the open method was administered by a house-anæsthetist, and after about five minutes, during which time large quantities of vomit were brought up, his breathing ceased. Artificial respiration and stimulants were employed without effect. The operation had not been begun. The report of the pathologist, Dr. Spilsbury, who made the post-mortem by order of the coroner, was that death was due to the rupture of a small ulcer in the intestine which had led to peritonitis. Vomited matter had regurgitated and lodged in the air-passages, whilst the patient was under the influence of the anæsthetic, and had thus produced suffocation. He did not think death had been hastened by the ether. The jury returned a verdict in accordance with this evidence.

MARY WALTER, æt. 32, was admitted on November 23rd, 1910, into Martha Ward, under Mr. Lane, for constipation. Ten years previously she had been in Patience Ward under Mr. Targett for an "abortion with septic complications," and in 1909 she was operated upon at the London Hospital for appendicitis. The patient was kept under observation for a fortnight, and on December 7th, Mr. Lane proceeded to perform ileo-sigmoidostomy. Forty minutes before the administration of the anæsthetic, the patient received a hypodermic injection of morphine, ¼ gr., with atropine, 1/100 gr. Ether by the open method was administered by a house-anæsthetist. When the operation had lasted three-quarters of an hour, and was approaching completion, the patient was observed to cease breathing, and her face became deeply cyanosed. Artificial respiration was immediately begun, whilst ether was injected directly into the heart, and strychnine hypodermically. Hot fomentations were applied to the præcordial region. When artificial respiration had been continued for about twenty minutes, the heart was auscultated, and was found to have ceased to beat. At the autopsy there was phthisis at both apices, with pigmentary degeneration of the cardiac muscle. The thymus gland, which was persistent, was of large size. Dr. Spilsbury, who made the post-mortem examination by order of the coroner, stated that "death was due to cardiac failure secondary to status lymphaticus, and accelerated by the administration of ether by the open method." In returning a verdict of death by misadventure, the jury expressed the opinion that the doctors at Guy's Hospital were deserving of great praise for their treatment of the deceased. (*Daily Telegraph*, December 13th, 1910.)

Notes from the Genito-Urinary Department.

A device for arresting Haemorrhage during and after Prostatectomy.

ONE of the chief dangers during, and after an operation for removal of the prostate gland, by the suprapubic and vesical route, is the large amount of hæmorrhage which may occur. This hæmorrhage may be disadvantageous in two ways, first owing to the actual loss of blood, and secondly, owing to the presence of blood in the cavity occupied previously by the prostrate which is probably not a potential, but an actual cavity. This blood clots, and may become organised, so as to form a firm fibrous mass which may lead to stricture. I have had a case recently of enlarged prostate, in the genito-urinary department, in which I used a device for stopping the hæmorrhage which was highly successful, and which I have not seen described before. Briefly, it consists of a small indiarubber bag, 2½ to 3 inches long, shaped like a Rugby football and made of thin indiarubber connected to a thick indiarubber tube which is fitted with a stop-cock.

After removal of the prostate, the bag was introduced empty into the cavity which existed, and was then blown up with boracic lotion, and the stop-cock closed. Owing to the presence of the overhanging walls of the bladder, the bag remained in the cavity, and completely arrested the hæmorrhage, which had been free. The tube and stop-cock emerged from the suprapubic wound, through which also a drainage tube was inserted. The patient was dressed as usual, but no catheter was inserted. Six hours after the operation the indiarubber bag was removed, and came away quite easily, after the stop-cock was opened. There was no bleeding, and there never has been any blood in the urine except for a very short time following upon the passage of the first catheter after the operation. The progress of the case has been uneventful. The instrument was made for me by Messrs. Down Bros.

A. R. THOMPSON.

Appointments.

Civil.

SCOTT, W. JERMAN, M.B., B.S., of Windsor, has been appointed a member of the Eton College Medical Board.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

Deptford Medical Mission.

DEAR SIR,—Can you bring before young qualified men at Guy's Hospital that we are wanting a Churchman as Medical Superintendent of the Deptford Medical Mission? He would be required to see the poor at the Mission Dispensary, and to visit them in their homes within a radius of about half a mile from the Mission. He would have under him a qualified lady dispenser, a qualified nurse, and a mission worker. There are mission services and clubs in connection with the Mission, which is controlled by a council of gentlemen and ladies. The chairman is the Rector of Kidbrook. There is a very happy relationship between St. Paul's and the Medical Mission. I am on the council. The salary offered is £250 a year to a suitable man.

Formal application should be sent to Dr. F. A. Pring, 7, Hopton Road, Streatham, S.W.

I should be glad to show any possible candidate round and to answer any questions.—Yours sincerely,

R. P. ROSEVEARE,
Vicar of Deptford.

Deptford Rectory,
186, Lewisham High Road, S.E.
January 13th, 1911.

[We understand that anyone taking up this appointment would be able to live in Brockley or that district, and could at the same time do a certain amount of private practice.—ED. *G.H.G.*

John Hilton.

DEAR SIR,—I have recently been making notes on the history of the introduction of anæsthetics, and came across the account by Mr. Hilton of his case of abdominal section for obturator hernia. This occurred in September, 1847, under the influence of chloroform. Dr. Gull administered it from a napkin cone, with a sponge inside, the apex being open. As far as I know, this is the first case on record of chloroform anæsthesia at Guy's. In reading Hilton's account of this case and of another abdominal section for strangulation of intestine by a band of mesentery done the year before, and before the introduction of ether, one is struck by the marvellous clearness of the reasoning which led him to operate. The cases read like the description by a modern operator. Unfortunately, Hilton was hampered in two ways. In the first case he followed the then recognised practice of waiting, and the patient died after the operation from exhaustion, and in the second the patient died from peritonitis caused by his want of knowledge of the aseptic method of treatment, which was not to come in for another thirty years or so. But to the student of surgical history, Hilton stands out, at

the period of his writing his notes on these cases, as a long way ahead of most of his contemporaries. His papers are in the Transactions of the Medico-Chirurgical Society, Vol. 30–31.—Yours truly,

F. WILLIAM COCK.

1, Porchester Houses,
Porchester Square, W.
January 16th, 1911.

Pass List.

Royal College of Physicians of London, AND Royal College of Surgeons of England.

FIRST CONJOINT EXAMINATION, JANUARY, 1911.

Part I.—CHEMISTRY.	Part II.—PHYSICS.
*Bates, K. L.	††Horsley, L.
†Buer, W. B.	Lakin, C. W.
Bulleid, A.	†Pratt, W. H. A.
††Dressing, H. G.	*‡Savage, P.
†Gibson, C. C. G.	*‡Totton, J.
††Holmes, R. A.	Victory, J.

* Passed in Part I. only. † Passed in Part II. only.
‡ Completion of both Parts.

Part III.—ELEMENTARY BIOLOGY.

Bates, K. L.	Lakin, C. W.
Duggan, H. C.	Maelzer, N. H. S.
Halstead, D. V.	Montgomery, L. T.

Part IV.—PRACTICAL PHARMACY.

Lawson. F. W.	Pochin, C. H. G.
Lloyd, V. E.	Reeve, E. G.
Lucas, R. H.	Staley, R. C. W.
Millett, H.	Verver, B. T.
Perceval, J. L.	Vicary, W. P.
Platts, H.	White, E.

SECOND CONJOINT EXAMINATION, JANUARY, 1911.

ANATOMY AND PHYSIOLOGY.

Abdel-Al, A.	Kemp, J. W.
Annesley, F. D.	Pryn, W. R.
Cocks, J. S.	Selim, A. K.
Groves, H. S.	Smith, C. R.
Hanafy, M. Z.	Spalding, F. L.
Henry, A. M.	Wright, L. D.

Royal College of Surgeons of England.

LICENCE IN DENTAL SURGERY.
PRELIMINARY SCIENCE EXAMINATION, JANUARY, 1911.

Part I.—CHEMISTRY.	Part II.—PHYSICS.
Ballard, R. W.	Forrest, A. G.
Cutts, G. L.	‡*Llarena, E. F.
Edwards, H. J.	Mash, O. N.
† Nicholls, E. C.	

* Passed in Part I. only. † Passed in Part II. only.
‡ Completion of both Parts.

Examination Results.

CAMBRIDGE, DECEMBER 15TH, 1910.

M.A.

R. W. Merriman (Trinity).

Guy's Hospital Christian Union.

THE first monthly meeting of the Union for 1911 will be held on Thursday, January 26th. The Rev. H. Camden Lacey, Principal of Stanborough Park Missionary College, will speak on "The Missionary Ideal." The meeting will be held in the Medical School Committee Room.

The monthly meetings of the Union are open to all students.

A. G. SIMMINS, Hon. Sec.

Appointments.

Medical School Appointments.

The following appointments have been made by the Treasurer upon the recommendation of the Medical Council:—

Clinical Assistants in Medical Wards.—Messrs. G. T. Foster Smith, E. A. Penny (Dr. Hale White); C. D. Killpack, W. T. Chaning Pearce (Dr. Pitt); F. G. Lloyd, N. S. Carruthers (Sir Cooper Perry); H. H. Davis, E. R. Hart (Dr. Shaw).

Clinical Assistants in Surgical Wards.—Messrs. H. F. Stephens (Mr. Dunn); M. M. Munden (Sir A. Fripp).

Ophthalmic Dressers.—Messrs. N. Mutch, T. B. Heaton (Mr. Eason); A. J. McNair, H. P. Warner (Mr. Ormond) (February 1st); A. L. Gardner, F. S. Adams (Mr. Eason); R, C. Poyser, H. L. S. Griffiths (Mr. Ormond) (March 16th).

Surgeons' Dressers.—Messrs. W. S. George, C. Warner, V. F. Soothill (Mr. Symonds); J. M. Joly, C. Worster Drought (Mr. Lane); J. P. Jones, R. S. Kennedy, F. C. Hunôt (Mr. Dunn); F. C. Newman, E. Lawrence Jones, H. C. Godding (Sir A. Fripp).

Externs.—R. C. Poyser, L. Milton, T. E. Roberts, P. J, Watkin, A. H. Birks (February); H. N. Eccles, G. B. H. Jones, B. R. Parmiter, C. F. Constant, G. W. M. Andrew (March); P. Smith, J. L. Stewart, G. C. Covell, E. G. Schlesinger, H. L. Hopkins (April).

Change of Address.

A. H. Gool, M.B., B.S., from Guy's Hospital to 7, Buitencingle Street, Cape Town.

S. Holloway Olver, L.D.S., from 41 to 42, Devonshire Street, Portland Place, W.

R. Wynne Rouw, M.R.C.S., L.R.C.P., L.D.S., from 7. Wimpole Street, to 8, Upper Wimpole Street.

A. L. Saul, M.R.C.S., L.R.C.P., L.D.S., from Guy's Hospital to c/o W. B. Dougan, Esq., Commissioner Street, Boksburg, Transvaal.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Two Cases of Fracture in Alcoholics.

THE patient was shown into my consulting room, her arm strapped to her side, and there was a history of falling downstairs during sleep-walking. This information was contained in a letter from her doctor. Upon the screen I noted a bad fracture at the surgical neck of the humerus. It was bad because of the crumbly nature of the break, and because of the atrophic nature of the bone, which showed that kind of undue transparency to the ray which I have several times seen in cases of chronic alcoholism. I then understood the delicate suggestion of somnambulism.

The same afternoon I saw a lady of about the same age (between fifty and sixty), her arm strapped to her side, and a letter from her doctor saying she had fallen downstairs. History seemed to be repeating itself, but my suggestion of sleep-walking was not received in the kindly spirit I had anticipated, and the patient, whom, I am bound to admit, had no external signs of chronic alcoholism, became suspicious and uncommunicative. Upon the screen I saw the same crumbling, and the same atrophy, and in my letter to her doctor I referred to her alcoholic habit, and the inadvisability of operation on this account. He never told me I was right, he did better, he said "How on Earth did you know?"

I reproduce these two shoulders here, though by the time they are reproduced, I doubt whether they will show all that is necessary for diagnostic purposes. I trust, however, that you will recognise two points—firstly, that the bone does not look like ordinary healthy bone; secondly, that the fracture is not an ordinary healthy fracture.

There are so many diseases which create a bone thinning in our X-ray sense, and I have before pointed out the characteristic kind seen in tubercle and osteo-arthritis.* This alcoholic thinning is a third variety which affects all the bones, and is not more marked at the joints as in osteo-arthritis, nor so pronounced as in the bones of a tubercular subject. It is not always easy to detect, as the vagaries of the X-ray tube alone will alter the effect. The highly sensitive vacuum, measured in millionths of an atmosphere (a very unscientific but explicit phrase) is continually varying, and unless cognisance is taken of this fact, erroneous conclusions may be formed. When the X-rays can be made a fixed quantity, then I think the investigations of these thinnings of bone will be of vital importance in medicine and surgery. Even in the present state of imperfection it will not pay us to ignore them.

E. W. SHENTON.

*Vide G.H.G., May 28th, 1910. Vol. xxiv., No. 572.

Possible Effects of Prophylaxis on the Future of Medicine.

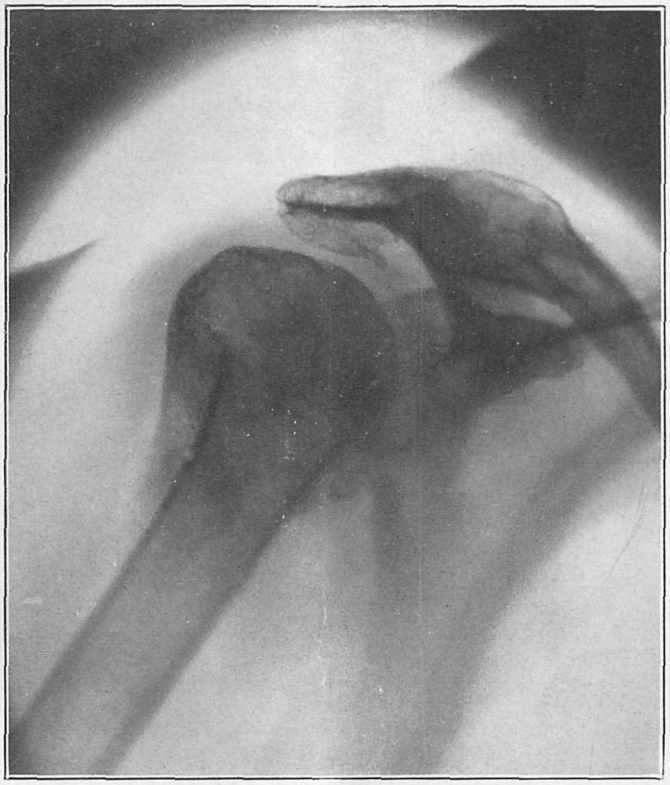
THE old saying which states the relative worth of prevention to cure might well be cited as the watch-word of modern medicine. Although it is well to treat patients, it is better to give rules for avoiding disease. With such an ideal before them, those who take part in the warfare with disease may be expected to pause and ask themselves what the end of these things shall be, and whether their ideal will ultimately be consumated.

An eminent physician, writing in the early eighties, said, "What the measure of our advance in the future will be it is impossible to foretell, but of this we may be satisfied, that the science of medicine will progress until the nature and cause of every disease is known and the cures found." In the light of present-day knowledge this glorious prediction seems more certain of fulfilment, and the foundation of our hope is prophylaxis.

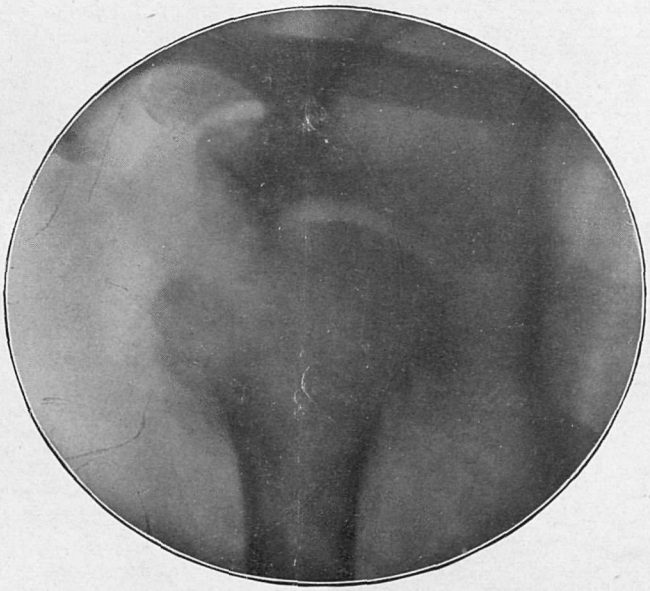
The methods by which prevention of disease is attempted are mainly two, viz., hygiene and serum-therapy or vaccination. The second method might be called pseudo-prophylaxis, since it is chiefly employed after a disease is suspected of having attacked the patient. The field for research in this branch of medicine is vast and its triumphs great, but the absolute prevention of disease will probably only be attained by strict personal and public hygiene. The effect that this predominence of prevention will have upon the teaching and practice of medicine will be profound.

A large part of the medical curriculum of the future will be filled with the study of dietetics, physical culture, psychology and eugenics, and, of course, a thorough training in public health. Should the medical student of to-morrow incline rather to the clinical than to the organising side of his profession, he will enter more deeply into the study of bacteriology and serum-therapy, about which he will already have had to learn a great deal more than is considered adequate for many present-day qualifications.

When qualified, the medical man or woman would either enlist in the public health service under State control or else become a vaccinator or bacteriologist in one of the large hospitals or laboratories scattered over the country, which would either be State owned or monopolised by trusts, as the expensive



Case I.



Case II.

Skiagrams illustrating Two Cases of Fracture in Alcoholics.

nature of research work and the apparatus required renders extensive serum-therapy almost an impossibility for the individual. Mechanical injuries and the grosser diseases of mankind, if there were any extant, would probably still be treated by surgeons who would form a distinct profession from that of medicine, and would, as in former times, be considered inferior to physicians, seeing that their function was to cure and not prevent disease. Needless to say, the bacteriologist and vaccinator would often co-operate with the surgeon as they do to-day, although their work would probably diminish as the activities of the hygienists and public health officers increased.

The general practitioner, and later the quack and patent medicine vendor, would gradually become extinct as the profession became organised, centralised and specialised, and the public obtained a truer conception of the aims of medicine.

We can, therefore, perceive in the remote future the day when prophylaxis will have completely absorbed medicine. It must be acknowledged, however, that for a long period of time there will yet be patients to be treated; but no one who studies its history can fail to be impressed by the slow but certain progress of medicine, by its increasing sanity and power, century after century, by offensive and defensive warfare, disease is being conquered, and the story of the combat is a long one, but it will have a happy ending.

S. W.

From the Gazette's Special Pathologist.

NOTICES.

ALL specimens—particularly those of solid tissues—should be accompanied, if possible, by a short clinical and post-mortem history, and a postal order for 2s. 6d. An extra charge of 6d. per slide is made when prepared sections are to be forwarded.

Directions to be followed in sending *Diphtheritic Membrane*;—Remove as much of the membraneous exudation as possible with a pair of forceps, which have been sterilized by boiling water. Place the exudation in a small, perfectly clean empty bottle, with a well-fitting glass stopper, and forward without delay. No preservative fluid should be used. The specimen must be accompanied by a Postal Order for 5s. A telegram will be despatched immediately the examination of the specimen is completed.

Diphtheria specimens are to be labelled *Immediate*.

Specimens, Letters, and Postal Orders should be addressed to the MANAGER, Gazette Office, Guy's Hospital.

J. L. J., MANCHESTER.—This specimen of sputum contains some muco-pus, but no tubercle bacilli are seen to be present.

Notes on a Clinical Lecture on Sudden Blindness in One Eye.

BY H. L. EASON.

GENTLEMEN,—It is the especial value of a clinical lecture that one can take a symptom or some group of symptoms, such as is met with in ordinary practice, and go over all the questions that may arise in its consideration. For that reason I have selected to-day, with one or two cases in my mind, an unusual, but important symptom, namely, sudden blindness in one eye. And by that I mean a complete blindness, limited to one eye. You see at once that this limits the field of our investigations to a very small area. You know that any lesion of the optic tract above the chiasma does not give you blindness in one eye, but blindness on one side of the middle of the field in each eye—hemianopia. A blindness in one eye, therefore, must be due to causes operating somewhere peripherally to the optic chiasma, *i.e.*, affecting the eye itself or the optic nerve between the globe and the chiasma.

Glaucoma.—There is only one common inflammatory cause of sudden blindness in one eye, and that is a disease of which I am often speaking, because I think it is of great importance, namely, glaucoma. As I lectured so recently on this subject, I do not propose to-day to do more than mention it, and remind you that it is the only ocular affection of a painful inflammatory nature which will reduce a person's vision from ordinary sight one day to total blindness the next.

I have taken to-day for this lecture some conditions in which blindness may occur within the space of half an hour to an hour, if not, indeed, more rapidly.

Vitreous hæmorrhage.—Just as in arterial and renal disease you may get suddenly, with little or no warning, hæmorrhages from the cerebral arteries, so you may get hæmorrhages in the vitreous. Those of you who have been through the Medical wards are familiar with the ordinary intraocular symptom of renal disease or arteriosclerosis, the so-called albuminuric retinitis. You may find more or less obvious changes in the arteries themselves, irregularity in their calibre, alteration in their appearance, and tortuosity, associated with numerous small flame-shaped or petechial hæmorrhages in the retina,

and white spots arranged in radiating lines round the macula itself. But in some cases of vascular disease you may get a much more pronounced hæmorrhage; instead of the hæmorrhage being limited to a small one of flame shape in the retina itself, it may be so large that the whole interior of the eye is filled with blood, the vitreous is soaked with it, and the patient may, from such a hæmorrhage, lose entire perception of light. You may also get hæmorrhages of that character from wounds or injuries of the ciliary body, or of the choroid itself. The choroid is an extremely vascular membrane, and any punctured wound of the eyeball is likely to lead to a profuse intra-ocular hæmorrhage. But there is another condition which may cause profuse intra-ocular hæmorrhage, and that is again glaucoma; and not from an inflammatory cause, but as the sequel of an operation for the relief of tension in glaucoma. In glaucoma when the eye is hard the intra-ocular circulation ceases, because the intra-ocular tension is higher than the arterial pressure. The operation of iridectomy necessitates letting out all the aqueous from the anterior chamber; that means that instead of the eye being hard to the touch, it suddenly becomes flabby. The result of the sudden relaxation of the intra-ocular tension causes a rupture of one of the choroidal vessels, usually a choroidal vein, and as the result there may be severe intra-ocular hæmorrhage, often so severe that the whole contents of the eye are extruded through the iridectomy incision.

What are the symptoms of a vitreous hæmorrhage? The first thing you notice is that the patient has no perception of light, though on external examination the eye is apparently normal. But you will notice in such a case, as in every case of blindness in one eye, that if the seeing eye is covered so that there is no light stimulus to provoke the consensual pupillary reflex, the pupil on the side of the injured eye does not react to light; that is to say there is abolition of the direct light reflex on that side. Ophthalmoscopically, there is nothing to be seen, for though the pupil is dilated, when you look into the eye you will find that it appears black. This distinguishes a vitreous hæmorrhage from any other condition which is met with in ophthalmic practice. If there is cataract you can see it; if there is a detachment of retina, optic atrophy, or glaucoma, you can see inside the eye, and you get more or less of the red fundus reflex on ophthalmoscopic examination. After severe vitreous hæmorrhage there is nothing at all to see. Therefore, if you get a condition in which the patient cannot see out of his eye, and on examining the eye with the opthalmoscope, you can see nothing but a black reflex in the pupil, you may be confident it can be nothing but a vitreous hæmorrhage. These cases may be extremely sudden, and in the severe cases the prognosis as to the return of sight is very bad. Slight hæmorrhages, as a rule, clear up, but there being no vessels in the vitreous, and only a lymphatic circulation, absorption of any effusion into the vitreous is very slow.

Detachment of the retina.—The retina may be detached from various causes, such as a growth beneath it pushing it away from the subjacent choroid, or high myopia, or from dropsy in renal disease. The interesting fact is that directly the retina strips away from the pigment epithelium layer, which usually remains attached to the choroid, sight is lost, for practical purposes, over that area, though there may be a certain dim perception of light. A retina may remain detached for three or four years or longer, and if from any cause the retina goes back to its original position, vision is instantly restored to its original acuity. Cases of that sort are very unusual, because spontaneous recovery from detachment of retina is rare; but I remember seeing a patient who was under the care of Mr. Higgens for some years with detachment of retina. She went to sleep on the sofa one day after lunch, and when she woke up she found her sight was as good as ever it was, though for seven years she had seen nothing with that eye. The retina had gone back, and directly it got back into position with the choroid again, the patient's vision was restored. Therefore the pigment epithelium of the retina must have a very important part to play in the production of vision, for the loss of sight in detachment of the retina cannot be due to disturbance of circulation, or you would not get sight restored after a long term of detachment; it must depend on the association of the retina with the pigment layer.

I will throw on the screen a lantern slide of a detachment of the retina, and you will see quite distinctly two billowy detachments at about the same level at the lower part of the eye, one slightly overlapping the other. They look opaque, and pearly grey in colour, and the vessels look small, very tortuous, and darker in colour. The reason for this appearance is that, if the retina is detached, it is bulged forward from the wall of the eye, and must be closer to the lens than the rest of the fundus, and as it is nearer, it is not so highly magnified. In a case of this kind the patient would be absolutely blind for visual sensations in the upper part of

the visual field. Anything below this horizontal level he would see well. In order to produce total blindness in one eye from detachment of retina, the detachment must be complete.

Embolism of the central artery of the retina.—One of the commonest of the causes of instantaneous blindness in one eye is embolism of the central artery of the retina. Just as there may be emboli in other parts of the body, and from the same cause, particularly arterial and cardiac disease, so you may occasionally get emboli in the eye, though, of course, the embolus must be very minute. The ocular circulation is a terminal circulation, as, except in very rare cases, there is no collateral circulation, so that any stoppage of the blood supply to the central artery of the retina results in immediate and irrecoverable blindness. If the other eye is covered you will find there is no perception of light, and the pupil remains widely dilated owing to the lack of visual stimuli. On looking into the fundus there is a characteristic appearance. The arteries being emptied of blood are extremely minute, and often hardly visible. After a day or two the outline of the disc begins to get hazy, and may become white and atrophic. The retina all round no longer appears transparent, but becomes grey in colour, resembling the grey of detachment of retina; the whole retina is anæmic, and the greyness is universal except at the yellow spot. That escapes because it is attached very firmly to the choroid and so gets a certain amount of choroidal subjacent colour, which is very distinct in contrast with the surrounding pallor. The slide on the screen reminds you of one exception to the causation of total blindness by an embolus in the central artery. There are other arteries going to the eye except the arteria-centralis retinæ, other arteries which are responsible for the choroidal, ciliary, and iridic circulation, and it occasionally happens that there may be an aberrant ciliary artery which pierces the sclerotic in the region of the disc, and supplies a certain amount of retina between the disc and the yellow spot. People who have a cilio-retinal artery are the fortunate ones, for if they have an embolism of the central artery they will not get total blindness, but will have a small area of vision in the centre of the visual field corresponding to the area of retina supplied by the cilio-retinal artery. After some weeks the circulation often seems to be somewhat restored, especially in the veins, where the blood column breaks up into sections, giving a dotted appearance, but the circulation is never established sufficiently to ensure the return of useful sight.

Thrombosis of the cerebral vein.—One never thinks of embolus of the central artery without the corresponding condition, thrombosis of the central vein of the retina. The ophthalmoscopic appearances are widely different, because in embolus the appearances are those of sudden cessation of the arterial flow; in thrombosis of the central vein the arterial circulation is good, but the venous return is obstructed. The disc looks like a Catherine wheel, for all over the fundus there are splashes of minute retinal hæmorrhages. The disc is one large pink blur, and emerging from this are seen dilated, tortuous retinal veins. In some cases, later on, some venous circulation is re-established, but more than half the cases of thrombosis of the retinal vein end in ultimate blindness from acute glaucoma.

Injuries to the optic nerve.—You have now to consider the causes outside the eye which affect the optic nerve. The common ones are only two in number, namely, injuries of the optic nerve, and that acute form of inflammation known as retrobulbar neuritis. I saw a case recently which will illustrate very well the result of injury to the optic nerve. A man, aged 27, was brought to see me who four days previously had been practising bayonet exercises with his brother with old French rifles, the bayonets being without tips to them. On this occasion one man struck the other in the face just below his eye at the outer margin of the orbit. There was nothing to be seen except a small punctured wound, scarcely more than a quarter of an inch across, which you would think would hardly admit the point of the bayonet. There was no ecchymosis, and the eye itself was absolutely uninjured; but from the moment of the accident it became absolutely blind, and has not yet recovered sight. By a very bad chance, the bayonet had cut his optic nerve right across. At the time I saw him there was no atrophy of the optic disc, but that will come later, for after any section of the optic nerve there is not only ascending, but descending atrophy.

A commoner cause of loss of vision in one eye is a fractured base with injury to the optic nerve. In this injury the optic nerve may be crushed in the optic foramen in the lesser wing of the sphenoid.

Retrobulbar neuritis.—Retrobulbar neuritis is a condition occurring usually in young people, more commonly women, in whom, from no apparent cause, there is complete and sudden loss of vision in one eye, very rarely in both. This loss persists for a week or fortnight, but

there is nothing to be seen in the eye itself. As the vision begins to return, so there may be more or less optic neuritis at the disc itself. In the majority of cases the vision returns to almost its normal standard; if there is any permanent defect it is usually in the centre of the field of vision, a central scotoma. The cause of this comparatively constant symptom has never yet been explained. It is probably due to the fact that the optic nerve derives its vascular supply from the pia mater of the sheath, and in any inflammatory affection of the nerve itself, the central fibres suffer most from deprivation of the ordinary circulation. As I have said, the causes of this condition are very obscure, and I shall not discuss them to-day; but I will relate a case which has been in the ward recently, which shows the occurrence of these attacks alternately on the two sides at intervals. The patient, H. G., a girl aged twenty-two, five years ago suddenly lost the sight in the right eye. She did not consult anybody about it, and the vision slowly improved. When I saw her in June, she had had pains in the head for two days on the left side, and while sitting at breakfast one morning, what she describes as a flash of lightning came across her eyes, and she noticed that the sight failed entirely. When I saw her two days after, the right eye had vision not quite normal, and the disc was rather pale. Otherwise she used the eye, and found it efficient for all purposes. The left eye was just beginning to get vision back, for she could count fingers at the lower part of the field, but could not even see a bright light in the other part. The disc was pale, and the veins were pulsating. The eye was tender to the touch, and there was supra-orbital tenderness, and Mr. Steward and I thought we felt a small mass on the inner side of the orbit. We had been looking out for dilatation of the accessory sinuses of the nose as a cause of monocular blindness of this sort, and we thought this might be a case. So a few days later Mr. Steward explored the inner side of the orbit, but found nothing abnormal, He removed a portion of the middle turbinal, and passed a probe into the sphenoidal sinus, but found nothing abnormal there. Whether *post* or *propter* I do not know, but within two days the patient's vision had improved enormously. She could see straight in front of her, and her vision was 6/24ths, representing a visual acuity of about one-fourth of the normal. All that remained was some pallor of the disc, and central weakness of vision for the colours red and green. She went on all right from 22nd of June to 17th of July, when suddenly she lost the sight of the right eye again, completely. When I saw her, vision was returning slowly. She could then see light straight in front of her. The disc was pale, but there was not much else to be seen. She came in the ward again for observation, and has slowly recovered her sight, and went out the other day with her sight practically normal. Her field of vision when she came into the ward was very restricted, in an irregular manner, and although she had not got an absolutely central scotoma, she still shows a scotoma in the immediate neighbourhood of the centre. There could not be a more characteristic clinical account of a case of retrobulbar neuritis. There is no organic disease which we can find to account for it. Her sex and her age, the suddenness of the onset, the recovery in each case, and the scotoma in the central part of the field, are all characteristic.

Migraine.—I have now to mention two functional disorders which may cause sudden loss of sight in one eye. The first of these is migraine. The ordinary symptoms of migraine are partial loss of sight, very often homonymous hemiopia, or a central scotoma, in which people see apparently a boiling, flashing, white area in the central part of the field of vision surrounded by zig-zag lines, the so-called "fortification figures," followed by severe headache. But there may be not infrequently sudden blindness in one eye only. I have a letter from a patient of mine, who said he occasionally went blind in one eye with bilious headache. I asked him to write and tell me what he noticed in these attacks. He wrote to me on the 6th May last year as follows: "Last night, as I was having supper, my right eye seemed to be a little misty. I shut the other eye, and observed that the blindness seemed to come over the whole of the eye, not gradually, and not starting from either side or the top, but all over the eye." I had asked him not to mistake it for hemianopia, in which he would go blind on the right side of both eyes. "I got a friend to look into the eyes, first having them both open, and then shutting each one in turn, he examining the other. Just before the blindness began to clear, the enlargement of the pupil of the right eye was more noticeable than that of the left. The period from the beginning to the end of the blindness was about five minutes, and I could then see the outlines of things very distinctly, and they appeared as though they were lines of very strong electric light. I cannot describe it better than that, but hope you will understand. The left eye was not affected in any way, and I did not have any headache or after-effect." That is a very good

description from an ordinary man of an attack of migraine causing blindness in one eye.

Mr. Higgens remembers one Guy's student some years ago who had frequent attacks of monocular migraine. He found during one of those attacks, by opthalmoscopic examination, that the retina was pale and the arteries constricted.

Hysterical amaurosis.—It follows the usual rule that hysterical lesions are one-sided. We have recently had a woman in the Eye Wards who complained of total blindness in one eye for which we could find no cause. On applying the usual tests for discovering malingerers we found that she could see with that eye when she had both eyes open; but when the other was shut, she said she could see nothing. You may call it malingering, or, for want of a better term, you may call it hysterical unilateral amaurosis. But it agrees with the description which is given in all the text books. All the patients who suffer from unilateral hysterical blindness are not malingering. It is a definite loss of vision to them, though they always get good vision with the affected eye when they are using both binocularly.

Sleep.

Paper read before the Physiological Society, on December 12th, 1910, by F. V. BEVAN-BROWN.

SLEEP is the resting time of the brain, when its activities are suspended and its nourishment takes place. From a psychological point of view, sleep is "the time during which volition, sensation and consciousness are suspended"; from a physiological point of view it is "a period of comparative rest or inactivity during which the constructive or anabolic processes are in excess of the dis-assimilatory changes." To say "in excess of" is scarcely going far enough. During sleep, nutrition entirely supersedes function, except in periods of dreaming and semi-consciousness. Sleep is essentially the resting time of the brain; other parts of the body are also at rest, but they do not, as the brain does, entirely depend on sleep for their rest. Lying down without going to sleep rests the muscles, but the brain is constantly active, the train of thought never ceases until sleep occurs.

Every living organism has its definite periods of rest and activity; and the same rule prevails in each case that rest is, in the main, the period of anabolism, and activity in the main, the period of katabolism. During the winter, plants store up large quantities of starch to supply their needs during the period of activity in spring and summer and autumn. Hibernating animals store up glycogen in their liver to be ready for use when they wake up. Similarly, the brain replenishes its cells during sleep with nourishment which is to supply the necessary energy for the next day's activities. Thus, since all the body functions depend on the fitness of the brain for their proper performance, it is obvious how important and necessary sleep is. The statement that every living thing requires rest seems open to question in the case of the heart and respiratory organs, but after every heart beat and every respiration there is a pause, and during that pause the organ recovers from its effort, and gains sufficient energy for the next one.

During sleep, pulse, respiration, and temperature fall below normal; the eyes are turned up and the pupil is constricted. There is a lessened output of CO_2, showing suspended activities in the body. Respiration tends to become periodic, resembling Cheyne-Stokes breathing, and this is especially the case in children.

The intensity of sleep varies for different periods of the night. It is measured by the amount of stimulus necessary to wake the patient. The period of deepest sleep is about half an hour after first going to sleep. From this point the intensity becomes first rapidly, and then gradually, less and less until, as Howell puts it, the activities of the brain lie just below the threshold of consciousness. Before morning there is a further period of deep sleep, though not so deep as the first one, and from this second period the sleeper gradually recovers until he reaches the threshold of consciousness and wakes up.

The different centres of the brain go into unconsciousness at different times. The motor centres are among the first to go, and this is instanced by the familiar symptom of nodding of the head. The motor centres are also among the last to recover on waking up; it must have been the experience of every one to get into an uncomfortable position while asleep, and on regaining consciousness gradually to find oneself powerless to alter one's position for some time. The special senses are among the last to go, and the first to return. During the period of waking, noises may be distinctly heard, but they convey no meaning, as the centres of thought and consciousness are still asleep.

There have been many theories suggested as to the immediate and actual cause of sleep and of its regular occurrence. One idea is that sleep of the brain is analogous to fatigue of the muscles, and is caused by the same thing, namely, an accumulation of waste products of activity, such as lactic acid. To support this theory it has been shown that a dog's brain becomes distinctly more acid immediately before and after the animal goes to sleep, and a condition of drowsiness and torpor has been produced by injecting solutions of sodium lactate and of lactic acid itself into the blood stream. That there is such an

accumulation of waste products in the brain after a period of activity is, no doubt, true, but it is no adequate explanation of the immediate cause of a period of prolonged sleep.

A theory similar to this one suggests that sleep is caused by venous congestion in the brain. The resultant accumulation of CO_2 produces a depressing effect on the brain cells, and sleep results. The similarity between these two theories lies in the fact that in both the cause of sleep is put down to an acid condition of the brain, in the one case the acid being lactic acid and in the other CO_2. This CO_2 theory seems to receive support from the fact that in sleep produced by drugs there is also an accumulation of venous blood in the brain.

Another and rather striking theory is that proposed by Duval and others, and depends entirely on the neuron theory. The idea is that the sensory fibres terminate in the cerebral and cerebellar cortex in arborizations, which are in contact with the dendrites of the cerebral and cerebellar nerve cells. These dendrites are supposed to be similar to the pseudopodia of the amœba, and capable, therefore, of movement. The theory is that sleep is caused by the mechanical retraction of the dendrites from the termination of the sensory nerves. In this way, all sensory stimulation to the brain is cut off, and a condition of sleep results. Everyone knows how necessary for sleep is the absence of external stimuli. The weakness of this theory lies in the want of experimental evidence, of which there is none, except a series of striking experiments by Duval. He made brain sections of hibernating animals, and found that the sensory nerve endings and the dendrites of the brain cells were separated, and, moreover, that in those animals which had just commenced to hibernate or had nearly finished hibernating, the separation was not so great as in those animals that were in the middle of hibernating. This is impressive evidence, but hardly sufficient to establish the theory. Perhaps the truth is that this retraction of dendrites does take place in sleep, but is not the cause of sleep, but only a condition of it.

A theory that is supported by a large amount of evidence is the anæmia theory. Durham was one of the first men to develop this theory by experiment. By means of the trephine he removed a piece of a dog's skull in the parietal region, cut away the dura mater underneath, and replaced the piece of skull with glass, which he fixed in position with Canada balsam. He then observed, with the help of a lens, what took place in the brain when the animal went to sleep. He found that while awake and excited, the animal's brain was gorged with blood, but as it went to sleep the brain became paler and paler until it acquired a condition of anæmia. On waking up the dog, its brain was observed to blush, and the original blood flow returned. The brain was also observed to decrease in volume during sleep. Durham explained by this decreased volume why the cerebro-spinal fluid, in cases of fractured base of the skull, flowed out of the ears during sleep and not during waking. His argument as to the cause of sleep was as follows: The activity of an organ depends on its blood supply. If you cut off its blood supply, its activities cease, and in the case of the brain you get a condition of sleep. Now, the conditions most favourable to activity of the brain are dilated blood vessels and a rapid blood flow, because these conditions are most favourable to a plentiful supply of oxygen on which the activity of the brain, as of every organ, depends. These conditions are also most favourable to endosmosis, or the passage of waste material from the brain to the blood. On the other hand, a slow blood flow and contracted blood vessels are most favourable to the nutrition of the brain, that is, of exosmosis, or the passage of nutritive material from the blood plasma to the brain. In addition, the contracted blood vessels keep back the red blood corpuscles to a large extent, and so the supply of oxygen, and, as a result, the activity of the brain is suspended. This is necessary, as nutrition and function cannot work adequately together. This lessened supply of blood to the brain depends on an increased supply to other parts of the body, such as the skin, viscera, and kidneys. Howell and others, by means of the plethysmograph have shown that during sleep there is an increase in the volume of the limbs caused obviously by an increased blood supply. It was also observed that the skin became hotter and redder during sleep, and the fact that sweating occurs a great deal during sleep is further proof of an increased supply of blood to the skin. That there is an increased blood supply to the viscera and kidneys has never definitely been proved, but there is evidence for this in the activity of these organs during sleep. Thus, most normal people defæcate soon after getting up in the morning, generally after breakfast, when the food acts as a stimulus to defæcation. In the case of the kidneys, the percentage of solid matter in the urine passed after getting up in the morning is very high, and this is the true test of the activities of the kidneys. The actual cause of sleep, therefore, is the action of the vaso-motor centre in dilating the vessels of the limbs, viscera and kidneys, and thus reducing the cerebral supply. Durham suggested that the stimulus of the vaso-motor centre to do this was an accumulation of waste products of the brain. Howell suggested that it was due to fatigue of the centre, and this is probably nearer the truth.

In reviewing Durham's experiments and conclusions, one must be careful not to accept them too hastily, though they are very striking and at first seem very probable. The work of Leonard Hill, however, has caused them to be considerably modified. This observer states that during sleep there is cerebral congestion, especially of the veins, and all the vessels assume a dark hue. This statement is contradictory

of Durham's results, but receives support from other observers, and it must be remembered that Durham only observed a small portion of the brain in his experiment. On the balance of evidence the following conclusions may be arrived at as to what is the cause of sleep: The vaso-motor centre is the all-important factor in producing sleep. Towards the end of the day, either reflexly or through fatigue, it relaxes its grip on all the vessels it has under its control, namely, the skin, limb, and visceral vessels, but not the cerebral vessels. The result is fall of blood pressure, a larger quantity of blood in the skin, limbs, and viscera, and a diminished blood flow in the brain. This is so, since the cerebral blood vessels are devoid of a vaso-motor system, and since the blood supply to the brain depends on and varies with the systemic blood pressure. The cerebral vessels passively distend and contract as the blood pressure rises or falls, and to this the changes in volume of the brain are entirely due. Since the brain is a closed box, if it loses in volume in one direction, it must gain it in another, as the volume of the cranial contents is invariable. In this case the loss of volume due to diminished blood flow is compensated for by an increased secretion of cerebro-spinal fluid in the cranium.

The condition of the cerebral circulation now is a sluggish stream and partial cerebral anæmia, accompanied by vascular congestion, especially of the venous blood. In this condition the oxygen supply to the brain is a poor one, and the nutritive supply of the brain a good one, since the condition is favourable to exosmosis. In other words, katabolism is superseded by anabolism, the diminished supply of oxygen brings about unconsciousness or suspension of activities, and the supply of nourishment carried in the plasma reaches the brain under the best possible conditions.

The activity of the respiratory centre depends on blood pressure. Now blood pressure may fall low enough in sleep to cause respiration to cease. This produces asphyxia and an asphyxial constriction of arterioles, and a consequent rise of blood pressures sufficient to stimulate the centre to action again, and staircase respirations result which die away again as the blood becomes oxygenated and the CO_2 washed out. This is an explanation of Cheyne-Stokes breathing during sleep. Leonard Hill suggests that this type of breathing, which is chiefly peculiar to young children, and is also seen in hibernating animals, may be a survival of an ancestral form of periodic respiration such as is seen in amphibious animals to-day which come up periodically to the surface of the water to breathe. "Pathologically and in hibernation the bulbar centres may revert to that ancestral rhythm which was associated with a lower metabolism and a sluggish life."

The extreme importance of sleep, especially in children, is too often lost sight of nowadays. In children nutrition of the brain predominates over function, and since it is during sleep and then only that the brain is able to obtain its proper supply of nourishment, it is obvious now essential to the development of the brain, and indirectly to the body generally, a sufficient amount of sleep is. The most common cause of insanity in this country is neglected sleep in childhood, and the too common cases we see of physical and mental deformity are often traceable to the same cause. This is especially so in the slums, where the crowded conditions of living prevent the children getting a sufficient amount of wholesome and undisturbed sleep. If more attention were paid to this question by parents, medical men, and all people in charge of children, the general standard of physical and mental fitness would be higher than it is at present.

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M. K. Nelson, Esq.	0	10	6
O. V. Payne, Esq.	0	10	6
W. P. H. Munden, Esq.	0	10	6
F. W. H. Penfold, Esq.	0	10	6
A. E. Price, Esq., M.D.	0	10	6
H. A. Munro, Esq.	0	10	6
H. E. Croker Fox, Esq.	0	10	6
F. H. Fuller, Esq.	0	10	6
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R. G. Whitworth St. Cedd, Esq.... ...	0	10	6
F. J. Nicholls, Esq.	0	10	6
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H. J. Starling, Esq., M.D.	0	10	6
David Rice, Esq., M.D.	0	10	6
F. C. Young, Esq.	0	10	6
A. W. Penrose, Esq.	0	10	6
Anonymous	0	10	0
W. H. M. Smith, Esq.	0	10	0
W. H. Bowen, Esq., M.D....	0	5	0
H. J. Clarke, Esq.	0	5	0
E. Morgan, Esq.	0	5	0
E. R. Fothergill, Esq.	0	5	0
W. G. Nash, Esq.	0	5	0
Fleet Surg. W. W. Pryn, R.N.	0	5	0
N. I. Spriggs, Esq., M.D.	0	5	0
C. R. Howard, Esq., M.D.	0	3	0

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Salvarsan: Its Chemistry, Pharmacy and Therapeutics. By W. Harrison Martindale and W. Wynn Westcott. (Messrs. H. K. Lewis. 5s.)

This small volume is concerned as much with the chemistry and mode of preparation of the drug as with its therapeutic uses and effects. The book describes the evolution of the arsenic compounds, and causes us to marvel equally at the ingenuity and perseverance of their discoverer.

In regard to their toxicity, the author suggests that this is less in the case of "606" than in that of the other arsenic compounds, on account of the lesser solubility of the former in the blood. The book contains a condensed report of the results obtained by various observers, and draws attention to the less marked effects produced on lesions of the nervous system.

The results obtained in the treatment of other diseases, such as relapsing fever and malaria, are reviewed, repetition of dose being recommended by some people. The fact that the spirochætes disappear after the injection is pointed out, and full details of the dosage are given. The methods of preparation are given fully, with the chemical reaction appropriate to the method. Special articles nre quoted from leading observers, and a full list of references is appended. The book is both of practical and theoretical interest.

Treatment of Syphilis by the Ehrlich-Hata Remedy: "606." (Messrs. Rebman, Ltd.) Price 2s. 6d.

This small book consists of a collection of observations published by workers who have tried the effects of the drug supplied by Erhlich. They are, for the most part, Germans, and their results represent collectively many thousands of cases. The results are clearly set forth, and the practically unanimous opinion is that the drug is exceedingly valuable, especially in those cases that do not react well to the mercurial remedies. As to the method of administration of "606," it is pointed out that pain at the seat of injection is the main draw-back to intramuscular injection, and that some pyrexia and general symptoms often follow intravenous administration. The method of preparation varies considerably, but the majority use a sodium salt obtained by the addition of caustic soda. Others, however, prefer emulsions in paraffin or oil, and these injections are supposed to be less painful. The book is full of interest to those wishing for an account of the results obtained by an extensive use of this drug in the treatment of Syphilis.

Sport.

Rugby Football.

GUY'S v. ROSSLYN PARK.

With a weak side, Guy's just managed to score in this match in time to prevent that most unsatisfactory ending to any Rugby match, namely, a pointless draw. The game was played on the Hospital ground on Saturday, Januarv 7th, and the only score was a try by Stringer.

The turf was heavy. Rain the previous day had given way to a night's frost. This again disappeared before a morning's delightful sunshine. A firm footing was difficult, but nevertheless some bright and interesting football was seen. A glance at the team given below will show the Hospital's strength.

The game had been in progress quite a short while when the referee, Mr. Andrews, slipped and sprained his thigh. After a short delay a substitute was found and the game was continued with but little advantage to either side to half-time.

On resuming, the Park forwards becoming, doubtless, more accustomed to the treacherous going, got away in good style, Rosher (a Charing Cross Hospital man) leading the way. Once Lacey was passed, but Stringer saved grandly. Guy's pressed next, and Harkness presented Bowes with a good pass. The wingman hesitated and was slow off the mark, consequently he was bowled over and lost the ball, which the Park forwards carried right away to the corner flag. Phillcox eventually dashing for touch was pushed into touch-in-goal. Medlock next put in a splendid run three parts the length of the field. He kicked past Smith and had very hard luck in being just short of the leather as he fell. with Stolz an inch or two in front and able to kick the ball out of play. One or two bouts of good passing got the ball out to Stringer, who sprinted over in characteristic fashion; Medlock's kick for goal falling short. R. Davies showed up well in some open play before the end, while the star performer for Rosslyn Park was O'Brien, a fast three-quarter, lately at Bedford Grammar School. Team:—

GUY'S.—G. E. W. Lacey (back); L. B. Stringer, A. H. Harkness, G. C. Covell, D. W. Bowes (three-quarters); R. Davies, C. H. Medlock (halves); C. S. L. Roberts, W. S. Stranach, A. W. A. Davies, R. Stout, O. Parry Jones, L. Horsley, V. Glendining, A. R. Danby (forwards).

REMARKS.—The forwards did very well as a whole; but special mention should be made of Roberts. He played magnificently throughout, ably seconded by Parry Jones and Stranach. Horsley did much useful hard work. R. Davies at first threw his passes anywhere but near Medlock; later he played a greatly improved game. Medlock was splendid, and with a less experimental three-quarter line behind him would have been the initiator of much open play, as it was several of his openings were not accepted. Covell was given to dropping passes, and Bowes lacked determination.

Association Football.

UNITED HOSPITALS' ASSOCIATION FOOTBALL TOUR.

The party left Victoria on Friday evening, December 30th, and travelling all night, reached Paris early the following morning, full of gratitude for a calm crossing but of little else, for an English breakfast was earnestly attacked on arrival at the Quai d'Orsay. The start for Toulouse was most diverting—Vlasto, having lost his ticket, had to be left behind for the day; Birks just found his in time; Bergh then commenced to talk French, and our genial manager was a trifle upset.

However, we arrived at Toulouse without further incident, and were conducted to the Hotel de Paris by several of our opponents who on and off the field were very good friends.

Saturday night was more or less quiet, except that we welcomed the New Year with wine and song in the most approved English fashion. On Sunday afternoon we met the Stade Toulousain before a large crowd. The result, 3—1, about represents our superiority on the day's play, but we must say we were out of form and slow on the ball, whereas the Frenchmen were very active. Generally speaking, the forwards were not well together, and were not properly supported by the backs and halves, though nearly all did well at times. Bergh scored all three goals.

Both teams made merry in the evening at a dinner given in our honour where wit and wine sparkled together. Our captain's speech in the language of the country (sic) and G—ll—g—'s card tricks were by no means the least interesting features of a very pleasant evening.

A move was made early next morning for Spain, those who had gone to bed being much annoyed. The journey was really very beautiful, the blue of the Mediterranean and the snow-clad mountains, with a hot sun overhead, were alike exquisite. These gave rise to much fruitful geographical discussion. The Urals, Caucasus and Alps were all mentioned in connection with what we saw, while the sea was anything from Marmora to the Pacific. However, we understand that it is many years since N—r—n or K—g were at school. At Port Bow, the frontier, Vlasto lost another ticket, but we smuggled him through, and reached Barcelona the same evening. We were sorry the beauties of the country were lost on G—, who slept peacefully all day.

Our sojourn in Barcelona, from Monday evening to Saturday morning, was one long feast of amusement and jollity. Spanish, French, English and German gentlemen connected officially or by interest only with the Barcelona Football Club all contrived to give us a really good time, and in gratitude to all we say that they exceeded our wildest hopes. A list of what we did would perhaps weary, it is sufficient to say that each day and night Barcelona, the largest richest and most beautiful city in Spain, and Barcelona life were revealed to us with increasing interest. In a humbler way we welcomed them at our hotel, where music and song were always to be heard, and here we may say that Humm, Norman and Russ, assisted by Burgh, King and the company generally, greatly added to the pleasure of the trip.

The object of the tour was Football, and this was not forgotten. We accordingly trained hard till Friday, when before fully 8,000 people we met and defeated Barcelona by 4 goals to nil. The game, played on the hardest of grounds, was extremely fast. The Hospital men, playing in their very best form, were just a little superior in each department, but this was marked in goal, where Rhys-Evans gave an excellent display. The team was re-arranged, Birks going inside right to King, and Golledge and Hodge forming the left wing, while Humm dropped back to half-back. Where all played well it is hard to criticise, but we have seldom seen King and Birks in better form, while Bergh was very little behind. The halves, all three, tackled hard and passed well and at once. Norman and Russ were always well up, and gave a sterling display. Bergh scored three times and Birks once. Our opponents, whose club has flourished for 11 years, played good football and knew the game. On the whole, we put the result down to our superior fitness.

The rest of the tour is, by comparison, the least interesting; every one was completely bored with the 22 hours' continuous journey to Paris, and when the time came to play the Racing Club de France we all felt anything more desirable than football. Fortunately, our opponents were not at full strength, and we managed to hold them and even gain a lead of 2 goals (again due to Bergh) till 20 minutes from the end, when the Frenchmen pressed hard and made the game level five minutes from time. It was then that Golledge scored his now historic goal; if unorthodox it certainly brought to light the cunning and savage element in his nature. Anyway, it enabled the United Hospitals to leave the Continent with a clean sheet, the record being three games, three wins, and a goal score of 10 to 3.

A word to Bergh, who besides scoring eight of them, showed a mental versatility, truly wonderful, in the way he mastered the language and accent of one country, or even province, immediately on leaving another. As interpreter he surely has no equal.

In conclusion, many thanks indeed to R. M. King, who (with Mons. Bellon) arranged the tour and himself managed everything in a manner which made him anything but the nuisance managers generally are! The team was:—

J. E. Rhys-Evans (Guy's) (goal); N. F. Norman (Bart.'s) and S. H. Russ (Guy's) (backs); M. E. D. Vlasto (University), H. B. Neely (Guy's), and P. S. Humm (Guy's) (halves); R. M. King, A. H. Birks, V. E. D. Bergh (Guy's), S. Hodge (Bart.'s), and V. F. H. Golledge (Guy's) (forwards).

Birth.

WALLIS.—On January 1st, at "Dorset Lodge, Tunbridge Wells, to Mr. and Mrs. Charles Doswell Wallis, a daughter.

Marriage.

ELWOOD—McKEE.—On December 26th, at the residence of the bride's father, by the Rev. Charles Davey, B.A., Walter Elwood, L.D.S. Eng., second son of William H. Elmore, L.D.S.I., Lumeah, Malone Park, and 64, Dublin Road, Belfast, to Harriet Isabele, only daughter of John McKee, Wyncroft, Adelaide Park, Belfast.

ED.—E. G. S., pp. A. N. C.

GUY'S HOSPITAL GAZETTE.

VOL. XXV., No. 590.] FEBRUARY 4, 1911. [SIXPENCE.

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Passim.

THERE will be a meeting of the Physical Society in the Physiological Theatre, at 5 p.m., on Monday, February 6th, when a lecture will be delivered by Fleet-Surgeon Beadnell. The title of the Lecture is "Modern Bullet Wounds and the Mechanism of their Production." The subject is an extremely interesting one, and it is hoped that a large medical audience will be present to listen to an old Guy's man who can speak as an authority on this branch of surgery.

WE offer our best congratulations to Mr. G. R. Hind, who has been chosen to represent England in the match against Ireland. This is the second time Mr. Hind has got his "cap," the previous occasion being against Scotland last year. With such an able captain, supported by an excellent fifteen, the Hospital should give a good account of itself in the Cup-ties. The draw for the Inter-hospital Cup-ties is as follows:—

London		
Mary's		A
Westminster ...		
St. Thomas' ...		
Bart.'s		
Charing Cross ...		B
Middlesex ...		
King's ...		
Guy's	Bye.	
University ...		

A—B draw for a bye in the Semi-final.

IN Passim of our last issue we bemoaned the great lack of material in the dissecting room. We do not know how widely read Passim is, but the following letter has been received by the authorities!

"DEAR SIR,

Please send full particulars of parting with body for life annuity at decease of same.

Yours respectfully,

_____."

WE are asked to announce that the Sixteenth Annual Dinner of the Guy's Hospital Dental Society will be held on Saturday, February 11th, at the Trocadero Restaurant, at 6.30 p.m. There are to be no speeches. And tickets for the dinner can be obtained from the Hon. Secretary, Mr. H. Shaw.

The Brown Dog has, we believe, at last made his final bow to the public, and is to go into permanent retirement! The cause of his re-appearance was an action to compel the Battersea authorities to allow the now famous statue to be reinstated. It was, however, decided that no such compulsion could be exercised, and so we are compelled to bid our old friend good-bye, and to wish him the quiet life in his retirement that he deserves. *De mortuis nil nisi bonum*, and after all he has served a very useful purpose, though perhaps not quite the one that was intended!

The whole question of Vivisection has been already talked threadbare, but the principle involved in this case was a far wider one. The laws of the country are made by the representatives of the majority, and it is not just, nor is it even desirable, that the minority should express their disagreement by erecting statues calculated to misinterpret the actions of those to whom they are opposed. Humanity has been and is one of the treasured principles of our profession, and any attack on it, such as was implied by the erection of the statue in question, naturally and rightly arouses the deepest resentment.

It is announced that an Inter-Hospital Billiard Competition is to be inaugurated. A challenge cup, and gold medals for the winning team, have been provided by Messrs. Burroughs and Watts, and the competition is open to teams of three from each hospital. It is hoped that men who play billiards will practise in order that Guy's may be well represented. Full particulars of this competition can be obtained from Mr. A. V. Moberly.

We would draw the attention of those up for the next Final Examination in Medicine to the notice that appears elsewhere in our columns of the revision classes that will shortly be starting.

Change of Address.

C. F. Snow, L.D.S., from Guy's Hospital to 82, Dutoitspan Road, Kimberley, Cape Colony.

On Exceptional Children.

By Dr. FORSYTH.

Time, said Bacon, is the great innovator; yet no one who is familiar with medical history will complain that time has laid any but the gentlest hands on our knowledge of children's diseases. This study is an ancient specialty that can trace its origin in England some centuries earlier than most of the important specialties of to-day. The distinction of writing the first English medical work on children belongs to an Elizabethan physician, John Faier. His black-letter "Booke of Chyldren" has become the parent of a large and growing stock of works on the same subject. Unfortunately, however, its descendants soon come to share a monotonous family likeness, few, if any, until recent years possessing any new feature. Until the end of the eighteenth century our professional ancestors were content to accept the teaching of those who had gone before them. With their scientific curiosity asleep, they saw no threadbare places in the homely pathology that had served their forefathers. Why, therefore, should they patch or weave? For generations they made teething and worms cover a multitude of physiological sins, and they seemed quite happy in clothing other diseases with explanations as pathogenically unconvincing as "colic" or "fits." While they took up this position time was in no hurry to reveal any new truths.

We ourselves, perhaps, cannot claim to be altogether free from tradition—are not ten thousand infants certified every year as dying from "convulsions"?—but we prefer to look at things with our own eyes. Without being endowed with a complete understanding of juvenile pathology, we can comfort ourselves that most of the rocks and shoals that fringe the sea of early life have now been charted pretty accurately. Children can be steered between them safely enough. The practical result is already showing itself in our child population. The incidence of disease is falling on it less heavily. Fewer children are dying, fewer become ill, and I am not sure that with some of their diseases the clinical type is not becoming milder. Their major diseases (in contradistinction to their minor ailments) have been made to loosen their grip, and, following small-pox and typhus, are retreating along the road to extinction.

This gives us time to engage more closely with those minor conditions which in their turn are now pressing forward into the front rank. Our

pathological interest is being transferred from the diseases which prey on life itself to those whose worst is merely to harrass it. Simultaneously with this change our standard of the importance of various diseases has altered. Many lesions such as dental caries, which used to receive no attention, have now moved from the far distance into the foreground. They have taken on large proportions. No longer hidden by more serious complaints their importance cannot be overlooked.

At the same time, however, as these draw near a train of new affections is winding into view on the horizon. New, that is to say, not in the sense that they have come into existence for the first time, but new to our observation. Hitherto they have been beyond the range of our sight. Perhaps it would be rash to attempt to describe them while they are still so far off. Yet many keen eyes are already being turned eagerly towards them. People are recognising this and that about them. There are even those who think they are watching the very rearguard of the pestilential hordes that for untold centuries have hung on our flanks. I cannot say, but at any rate a distant throng that can raise hopes as big as these deserves to be specially noticed if only in this short paper.

For the moment, however, let us leave it to look again at these minor diseases that have now drawn abreast of us. They are all more or less trivial. None produces really dangerous results. And yet the children who are affected by them are without doubt pathological. It is difficult, on the other hand, to feel that this term is altogether appropriate to them. They have so little the matter with them, unlike the real patholog cal children we have been accustomed to in our wards. A child whose hearing has been dulled by some naso-pharyngeal trouble, or whose sight is dimmed by corneal nebulæ, is not normal and yet is hardly pathological. Such children, as we all know, have been grouped together of late years as "abnormal" children. They have attracted much notice not on account of their diseases, but because of the very serious social obstacles that bar their way through life. The close study that has been made of them represents the most recent changes in the medical attitude towards childhood. It is the stage we have reached to-day. First came the pathological children with gross lesions, then the abnormal children. The point I should like to make here is that whether pathological or merely abnormal the children who h therto have interested us from the medical stan point have been expressly and implicitly diseased or suffering from the effects of disease.

Now let us change our point of view for a moment. Doctors are not alone in the field of childhood. Before ever the first children's specialist was recognised, a whole profession had devoted itself to the study of children. For generations schoolmasters have made this their business, and if they have moved slowly they have acted at any rate according to their contemporary lights. Their interest, however, has always been with the average healthy child. They sought a norm, round which as a starting point they could shape their methods of teaching and build up their system of education. When these were ready they expected as a matter of course that every child should fit their mould. If the fit was only fairly satisfactory the child was squeezed here and filled up there until it had taken the proper shape. When, however, the child was altogether a misfit—the mould having soon set as unyieldingly as cast-iron—the child lost its claim on the schoolmaster's interest. It was obstinate, troublesome, inattentive, stupid. In a word, it was not one of the children for whose benefit he existed. The conclusion we may draw here is that only those children who were normal have been the special concern of the educationalist.

From the foregoing it might seem, perhaps, that the whole of childhood has been adequately cared for. On the one side we have the doctors busy with their pathological and abnormal children. On the other are the schoolmasters shepherding their normal flock. Who is left out? Are not all provided for?

Not all. A large and significant group possessing unusual qualities and deserving more than ordinary attention has been completely overlooked. This is the group to which a couple of years ago Maximilian Groszmann gave the name of Exceptional Children.

What are exceptional children? Ordinary children we know; they are common enough. Abnormal children we know; the deaf, the blind, the cripples, the epileptics, the imbeciles. For long these two have been kept apart to right and left. Exceptional children are those who bridge the gap. Unnoticed by doctors, unheeded by educationalists, they stand hand in hand, linking up the normals with the abnormals. They belong to neither themselves. They are no more normal than they are abnormal. They are just exceptional. Some are bright, others are dull. Some are talented, others, perhaps, lack an everyday mental faculty. They may be exceptional physicially, mentally, morally. Often their peculiarity lies in more than one of these directions, and yet none varies more than a little from standard.

Their study is only in its beginnings, but it is destined to grow to importance medically, educationally and even biologically. As a medical study these children are those whose infirmities, as we have seen, are now becoming discernible on the horizon. Educationally they form the wedge that will break up the rigid system which fashions every child in a common and commonplace mould. Biologically they bring with them the key to many of the problems of human evolution.

Though we have almost everything to learn about them, no one who is interested in children can afford to neglect them. Probably many readers of this GAZETTE are already working with the Educational Authorities throughout the country, and others will join them later. In the numerous schools that they will each inspect every year, they will meet exceptional children in plenty, if only they look for them. Some one has estimated that ten per cent. of the school population fall in this category. Perhaps a school doctor's first introduction is made when a headmaster brings him a youngster who is the despair of all his teachers. He seems to learn nothing, and the staff long ago gave up all serious interest in him. Planning to get rid of the boy to a special school or home, the master will probably endeavour to use the doctor's authority to this end. Often, however, there is no sufficient reason for condemning the unfortunate child to this fate. He may be merely an educational misfit, and as such has not been understood. He needs to be investigated, and the doctor has before him a highly interesting and thoroughly practical problem in mental physiology. It is for him, not only to ascertain the special points at which the child fails to fit, but to arrange the modifications in its training, which will adapt either the child to the stereotyped teaching or the teaching to the exceptional child.

Let me illustrate this by the instance of a girl of eleven who was discovered recently in a deaf school in London. To the doctor's surprise she presented no evidence of any disease of her organs of hearing. He noticed, however, that when spoken to with her back turned she merely mumbled, parrot-like, what was said to her. On the other hand, if she was placed where she could watch his lips, she answered brightly and rationally. A strange conversation followed :—

DOCTOR : " What is the time ? " (*by ear only*).

CHILD (*mumbling without intelligence*) : " What is the time."

DOCTOR : " What is the time ? " (*lip-read*).

CHILD (*immediately looking at clock*) : " Three o'clock."

DOCTOR : " What is the number of your house ? " (*by ear*).

CHILD : " What is the number of my house."

DOCTOR : " Well ! tell me." (*lip-read*).

CHILD : " Forty."

Dr. C. J. Thomas, who observed the case, set himself to fit the child to the methods of an ordinary school, rather than leave her to be launched into adult life burdened with the heavy disabilities of a deaf woman. Soon he succeeded in effecting an obvious improvement.

DOCTOR : " When is your birthday, Dorothy ? " (*by ear*).

CHILD : " When is my birthday. December the 30th."

DOCTOR : " When do you say your birthday was ? " (*by ear*).

CHILD : " When do you say my birthday was. December the 30th."

In the end she was taught to reply to any question without these preliminary repetitions. An exceptional child, she is an instance of a remarkable form of psychical deafness known as echolalia or echo-speech. By a slightly specialised training she was fitted up for an ordinary school, and yet she had been attending a deaf school for three years before her peculiarity was diagnosed and set right.

In another class of exceptional children—usually educational misfits—are those whose failure is primarily physical. Without any gross lesion such as endocarditis or encephalitis, which lays a child aside from school life altogether, they suffer from a seemingly trivial affection—for example, functional dyspepsia. Dyspeptic children would often pass as normal in their appearance, but mentally and morally they are likely to be injured by their chronic pains. Without knowing, still less understanding, what is wrong with them, they grow out of joint with their little world. Before long they become timid and fearful. Later, when an unsympathetic school and, perhaps, home have rubbed them sore, they shrink into a shell of obstinacy and indifference. In such cases their minds and natures may be permanently tinged with unhappy colours, and yet neither their parents nor their teachers ever suspect the slight and remediable cause of the change.

In yet another class are those who show perverse tendencies on their moral side without, however, being morally insane. We must be careful to exclude from these the incorrigible liars, habitual thieves, incendiaries, and other recidivists, whose ideas of social relationships

have never developed. All these are definitely abnormal. In the exceptional class should probably be placed neurotic, passionate and selfish children; children with terrifying imaginations or emotional storms; sexually precocious children; perhaps the callous children who, delighting unnaturally in inflicting pain, are cruel at times when their self-control is weak—such as the tiny boy of nine "of fair and angelic appearance," who with his own diminutive hands squeezed the proverbial nine lives out of a cat. These children are difficult but by no means necessarily disappointing to deal with. Their training must be arranged on physiological and psychological lines, and therefore they need to be studied medically.

The examples I have given have been of children who fall short of normal, but we must not forget the exceptional children whose peculiarities place them on a higher level—talented children for example. If compelled to develop along average lines, their originality in only too many instances withers prematurely. It deserves to be investigated just as thoroughly as the defects of other exceptional children.

Perhaps the saddest examples of misunderstood children are to be found among the exceptionally bright boys and girls whose rich potentialities are sacrificed beneath the Juggernaut of a routine system. Not long ago a well-known American educationalist urged the crying need for an intelligent and sympathetic study of exceptional children. "Scores of thousands," he wrote, "could testify to the truth of this out of their own bitter, even tragic experience. Many are they who have been needlessly, almost criminally, misunderstood by those from whom they have a natural right to be properly appreciated." The educationalists are awaking to this need, but they are already finding that the problem is in part medical. The professional lines on which they themselves have been trained only partially qualify them for the task. Far from resenting medical help, however, they are everywhere inviting and welcoming it.

This attitude is no small tribute to their sincerity and breadth of outlook, and it behoves the doctors to meet them with equal cordiality. We have much to learn from them. It is curious how our interest in childhood widens when it is allowed to flow alongside the stream of educational science. It is one thing examining the sick children who come to us in hospital or practice. It is another thing dealing with school children most of whom are healthy. Those who are working among the latter will find to their pleasure and, possibly, surprise that the physiological and psychological principles which they acquired laboriously in their training are of really practical value. When applied to individual children, they will produce results that are as beneficial as they are gratifying. The teachers on their side have not been slow in recognising the great changes that are coming about. It is no over-sanguine belief that between them the educationalists and the doctors are sowing for a record harvest.

NOTICES.

Revision Classes in Medicine.

SCHOOL EXAMINATION.

The School Examination in Medicine, for admission to the Revision Classes in Medicine, will be held in the Medical School Office, on Monday, February 13th next, at 10 a.m.

The Revision Classes themselves begin on Monday, February 20th, and they will be held upon Mondays, Wednesdays and Thursdays, at 3.30 p.m., in class-room III.

HERBERT FRENCH.

Guy's Hospital.

Returns of the Bacteriological and Vaccine Department for 1911.

TOTAL number of specimens examined in the Bacteriological Department, classified according to the department of the hospital from which each was derived, during the year 1910:—

Medical Wards	579
Clinical Wards	409
Surgical Wards	794
Post-mortem Room	131
Out-Patients' Department	769
Casualty Department—Front Surgery ...	1654
Unclassified	990
Total, 1910	5,326
Total, 1909	5,830

Total number of specimens examined in the Bacteriological Department during each month of the year 1910:—

January	380
February	409
March	345
April	426
May	472
June	496
July	416
August	476
September	437
October	405
November	559
December	505
Total, 1910	5,326
Total, 1909	5,830

VACCINE IN-PATIENTS.

1910.	Addison.	A. C.	Charity.	Clinical.	Cornelius.	Dorcas.	Esther.	Eye.	Job.	Lazarus.	Luke.	Lydia.	Martha.	Mary.	Naaman.	Pat.&Sam.	Q. V.	Stephen.	Total, 1910.	Total, 1909.
Dr. Hale White ...	13	...	...	1	...	...	...	...	...	...	...	...	...	14	...	...	...	...	28	18
Dr. Pitt	...	...	...	3	...	...	6	...	...	...	...	...	...	...	...	...	...	3	12	8
Sir Cooper Perry ...	...	...	...	6	...	...	4	...	...	...	...	...	...	...	...	...	...	5	15	5
Dr. Shaw	3	...	...	2	...	...	...	...	...	...	...	...	...	6	...	...	...	...	11	7
Dr. Fawcett ...	2	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	9
Dr. Beddard ...	...	...	...	9	...	...	2	...	...	...	...	...	...	...	...	...	...	2	13	9
Dr. French	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2
Dr. Hertz	3	...	...	4	...	...	...	...	...	...	...	...	...	2	...	...	...	...	9	4
Mr. Symonds ...	...	5	...	...	...	...	...	...	5	...	...	6	...	...	...	...	...	...	16	14
Mr. Lane	...	...	...	...	6	..	...	...	...	12	...	...	14	...	...	...	...	...	32	51
Mr. Dunn	...	1	...	...	...	14	...	...	...	...	...	...	...	...	8	...	...	...	23	26
Sir Alfred Fripp ..	...	...	9	...	1	...	...	...	...	...	3	...	...	...	...	...	...	...	13	21
Mr. Steward ...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	6	...	...	7	5
Mr. Fagge	...	...	...	...	...	...	...	...	...	1	...	...	2	...	...	7	...	...	10	8
Mr. Rowlands ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	6	...	...	8	12
Mr. Turner	...	...	1	...	1	...	...	...	...	...	1	...	...	...	...	7	...	...	10	2
Mr. Targett... ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	4	...	7	6
Mr. B. Smith ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	5	3
Mr. Eason	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	6	5
Mr. Ormond ...	...	...	...	...	...	...	...	8	...	...	...	...	...	...	...	...	...	...	8	3
Mr. Mollison ...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...
Dr. Eyre (Students)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	28	...
Total	21	6	10	30	8	15	12	15	6	13	4	6	16	22	9	34	4	10	269	218

VACCINE OUT-PATIENTS.

The number of special vaccines prepared during 1910 was 316, as compared with 211 in 1909:—

Month, 1910.	No. of Letters Issued.	No. of Attendances.	No. of Doses Administered.	
			Of Tuberculin.	Spec. Vaccine.
January ...	85	158	69	57
February ...	19	178	71	69
March ...	10	157	75	50
April ...	18	191	92	66
May ...	13	199	95	67
June ...	15	172	85	58
July ...	21	211	87	69
August ..	16	208	112	70
September ...	8	189	110	59
October ...	3	155	80	40
November ..	12	159	74	55
December ...	14	168	81	11
Total, 1910	234	2,145	1,031	671
Total, 1909	263	1,801	814	527

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the GAZETTE *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs.*

Pupils' Physical Society.

THE seventh meeting of the session, being the occasion of a clinical evening, was held in the Wills Library, at 8 p.m., on Saturday, January 21st. Mr. A. Sandison occupied the chair. Thirty-four members were present. The following cases were shown:—

1. Still's disease, by Mr. Scott.
2. Spasmodic stricture of lower end of œsophagus, by Mr. Saner.
3. Epithelioma of floor of mouth, by Mr. Saner.
4. Aphasia, by Mr. Cook.
5. Infantile hemiplegia, by Mr. Edmond.
6. Persistent nocturnal enuresis and rectal incontinence, by Dr. Mann.
7. Liver abscess, by Mr. Fox.
8. Progressive muscular atrophy, by Mr. Kook.
9. Cerebral tumour, by Mr. Bennett.

An excellent discussion followed, to which (besides the Chairman and Honorary Secretaries) the following contributed:—Messrs. Cook, Saner, Penny, Mutch, Schlesinger, Edmond, R. Stout, Dr. Mann, Robinson, Marshall, Billing, Heaton, Passey, Bennett, Scott, Richards, Pakes, Rook, Fox, Felton, Hampton, and Miller.

The meeting adjourned for coffee at 10.30 p.m.

A New Book.

I Wonder; Essays for the Young People. By Stephen Paget.

Those who have spent some hours of pure delight over "Confessio Medici," and of delight, not wholly unmixed, perhaps, with controversial agitation, over "The Faith and Works of Christian Science," were doubtless pleased to see an announcement lately made in the papers of a new book by this author, with the above suggestive title. I am sure they looked forward to a repetition of those airy and sympathetic humours which surprised even our friend, the lay public, into applause. I think they will not be disappointed. This book is not so nearly concerned with medical matters as the "Confessio Medici"; but it bears the very original hall-mark of its author's style, and we who have been attracted by his previous writings will not be slow to discern the man through any subject. And though it is not purely medical, yet it deals with matters which are interesting to anybody who is a human being besides being a doctor, and especially interesting to those who are all the more human because they are doctors. For this is indeed one of the greatest characteristics of the author, his intense humanity. He is so greatly in love with life; he has such a rich zest for human experience, such a relish for the commonplace. Here is a man who will not go the way of cynicism, but lives a man among men, and esteems no man's life or thought too dull for the light of wonder to redeem. Nor has he a word to say to pessimism, which is indeed to him the one unpardonable sin. Surely a goodly portion of the spirit of such excellent souls as Charles Lamb and "R. L. S." has fallen upon him. Look through all his books and see how this play of kindly optimism gladdens almost every page. If you have not read the "Confessio Medici," read it; at least read, here, the end of it. Remember, the man who wrote it certainly knows all about hard work, poor fees, ingratitude, and the rest; but he sees life steadily, and sees it whole, and this is how he sums up his view of a doctor's life:

> "The natural dignity of our work, its unembarrassed kindness, its insight into life, its hold on science: for these privileges, and for all that they bring with them, up and up, high over the top of the tree, the very heavens open, preaching thankfulness. Circle above circle, the reasons for it are established, out of the reach of words."

Next, take "The Faith and Works of Christian Science." I have heard various criticisms passed upon the book, some full of praise, others not nearly so nice. But, granting that it is hot-headed, granting for the moment that it is even unscientific, consider if there be not at least a certain high and enviable spirit of chivalry, and a great deal of the milk of human kindness, in a man who could write thus:

> "They (Christian Scientists) bully dying women and let babies die in pain: rob the epileptic of their bromide, the syphilitic of their iodide, the angina cases of their amyl nitrite, the heart cases of their digitalis. . . . For God's sake, leave the children alone. . . . Is it fair to tell a child that pain is not real? I cannot imagine sharper grief than for a mother to lose her child that way —O mother, mother, you told me God wouldn't let me be hurt; and O mother, He has, dreadfully!"

That was his excuse for writing the book, surely not altogether a despicable one. And we know that he is the energetic secretary of the Research Defence Society. Moreover, he comes of the stock of that Grand Old Man of Bart.'s, Sir James Paget, to whose memory let all Guy's men, without fear of disloyalty, pay deep homage; whose life was gentle, and the elements so mixed in him that Nature might stand up and say to all the world, "This was a man."

Come, now, and hear this man wonder. He is sealed of the tribe of Sir Thomas Browne, who held his life to be a miracle of thirty years, "which to relate, were not a history, but a piece of poetry, and would sound to common ears like a fable." The way of wonder, the wonder of matter, of nature, self, pain, death, beauty, the use of wonder, such are his texts. Are they unnecessary in a somewhat sophisticated age, when there are few things left remarkable beneath the visiting moon? And yet, if we consider the kingdom of wonder, we shall find her boundaries wider than we can easily comprehend. The greater part of literature, from Job to G. K. Chesterton, is fulfilled of the spirit of wonder. Art teems with wonder, especially Turner. Music is dark with great mysteries, especially Wagner. My lady Science, in spite of much said to the contrary, has, we know, greatly added to the sum of wonder. Here is a man who has a lively conviction that this is true, and that it is worth while saying so. And the world which he opens to our wonder is not alone the world of genius; it is not alone, nor chiefly, the "wonderful world" which the *Sketch* and the *Bystander* show us week by week in their scintillating pages; it is the world of the soap and the tooth-brush, of dress-lengths in Bond Street, and archetypal teapots in heaven: the wonder of the commonplace, the mystery of simplicity.

The *Times*, indeed, shakes her respectable head over this pleasant talk about the teapot. Apparently the author has gone sadly astray from the lines of modern philosophy. It would certainly not be difficult to pick out various hard sayings to exercise one's gall upon, scattered here and there through the book. "Get these facts by heart. Surely the heart is a safer place than the head for all facts, especially for such as belong to science." "You cannot rest in the comfortable assurance that good comes out of evil: it only comes out because it could not stop in." This, say the

hypercritics, is mere juggling with words. It may be so; and very pleasant juggling it is. But is it so very reprehensible after all? I am pleading rather for the general spirit of the book, which is indeed the personality of the author, than for accuracy of philosophical thought. It is not intended to be philosophical, it is not intended to be scientific: it is intended to be, and it is, intensely human; and who knows whether that be not the wisest attitude? It is a book more concerned with the springs of action than with systems of thought. I suppose we might even call it didactic, if we were not frightened of the word: for it professes to be, in some sort, a guide to a wise faith; and faith without works, they tell us, is dead. But indeed you will not know that it is didactic, until you have read it right through with increasing delight: and let us hope that you will not know it even then.

The *Times*, too, wonders at the author's selection of Pope to illustrate his subject—Pope, who lived in the dark ages before wonder was born. Poor old eighteenth century, dear charming nymph, neglected and decried! We, at least, shall be little inclined to point a superior finger at a century which produced Samuel Johnson, John Hunter, and Guy's Hospital.

But I must not leave the impression that the author is one who preaches us solemn and morbid little sermons for our good. Here is a pleasant piece, which shows him as a fellow of infinite jest, of most excellent fancy. He is talking of a new Noah's Ark, designed to teach the young idea the "Origin of Species." And thus he pictures the procession:

> "First will come the germs, microbes, algæ, yeasts, spores, protozoa, and the like unicellular creatures. The difficulty will be to make them visible to the naked eye; and there must be some device to say that they are harmless. Then the ascidians, jelly fishes and sea anemones; then the amphioxus, all by himself, with this legend, on a little paper banner: *Vertebratus sum, vertebrati nihil a me alienum puto.* The procession, at this point, will be interrupted; then will come the reptiles and the birds, and, I should think, somewhere about here, the ornithorhynchus, but I am not sure."

And just one quotation more, to show his tonic optimism at its best. He is not oblivious of the wonder of the sum of evil, and has something to say on that matter in his last chapter. But he will not allow that it has the slightest effect on the wonder of the sum of good.

> "Let a man count every weed in Life's garden, every speck of dirt in Life's house; the garden and the house are still there. Children, strong and happy, play on the lawns, and race along the terraces; lovers, in the garden, meet and kiss, while nobody is looking but the flowers, which are models of discretion; light and music, out from the windows of the great ball-room, fill the darkness and the silence. Among the house-party are hard-working men of affairs, artists, scholars, travellers; wise pure-minded women, good wives and good mothers; patient old people, who keep their tempers, and pay their debts, and weigh their words, and read their classics. Though a fool or two be of the party; though the garden be ill-kept; though the house be capable of improvement, more bath-rooms, another sitting-room, another range in the vast kitchen—still, it is a fine house, replete with historical associations. Doubtless the house and the garden might be better; still, they might be worse."

When I first entered the wards at Guy's I wondered at everything, from a registrar to a wardmaid; I suppose we all do, more or less; but were we not better off then, than when in course of time the registrar became a bore and the wardmaid a nuisance? We all tend to become encysted, as one might say, in custom, and to form terribly firm adhesions to our immediate surroundings; let us be thankful to one who shows us the way back to that ampler æther and diviner air which we left perhaps some fifteen or twenty years ago; and whose book is an echo of Fra Lippo Lippi's exulting cry—

> "This world's no blot for us,
> Nor blank; it means intensely, and means good;
> To find its meaning is my meat and drink."

R.

Literary Intelligence.

For several years, Dr. Eden, Obstetric Physician to Charing Cross Hospital, has been engaged in writing *A Manual of Gynæcology*, as a companion volume to his well-known *Manual of Midwifery*. The object of this book is to present a comprehensive account of the diseases of women from the standpoint of pathology and treatment. The work will consist of 750 pages, in small royal octavo size. It will contain 300 illustrations, the drawings for which have been specially made for the purpose.

Dr. J. B. Hurry, of Reading, whose investigations and writings on the subject of *Vicious Circles in Disease* are already well known, has written a book on the subject. It will be ready in a few weeks.

The publishers of the above books are Messrs. J. & A. Churchill.

The degree of Doctor Honoris Causa has been conferred by the Philosophic Faculty of the University of Marburg on Mr. Ernst Leitz of the well-known firm of opticians.

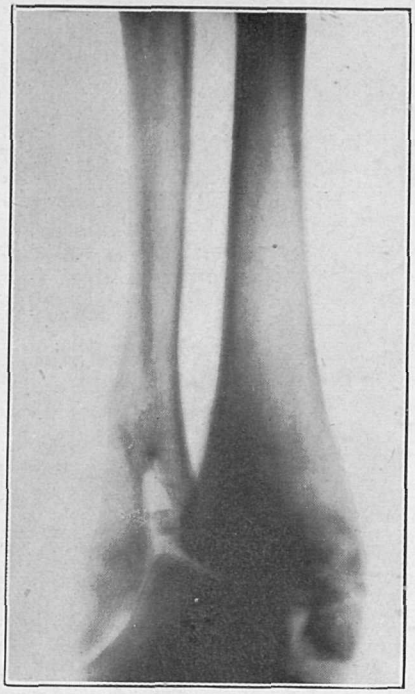

FIG. 2.—Note the separation of the malleoli, tilting of the astragalus, and weak union of the fibula.

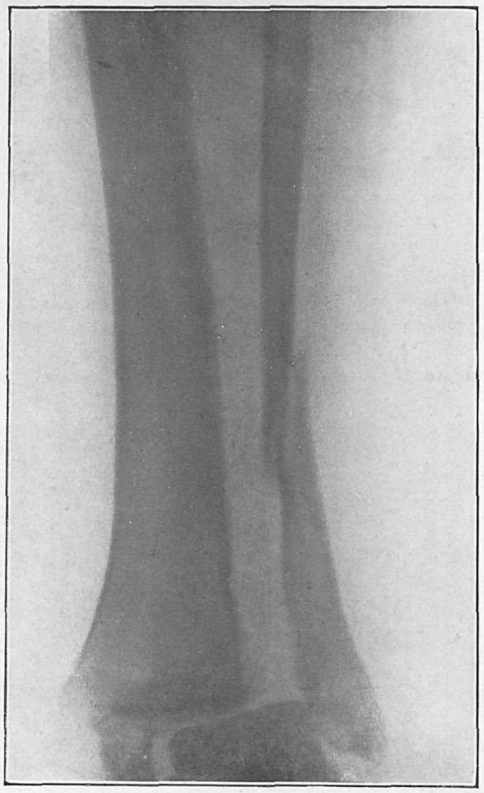

FIG. 3.—A typical Dupuytren's fracture.

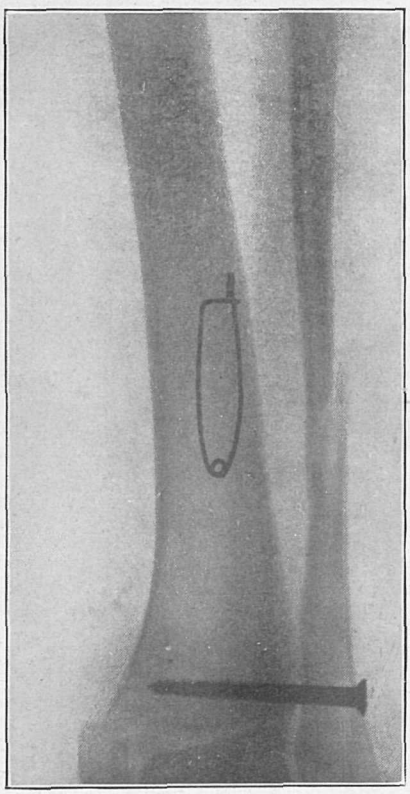

FIG. 4.—The contiguous surfaces of the tibia and fibula have been pared, and a long screw has been passed horizontally to keep the bones together until bony union occurs. Note the good position of the fibular fracture.

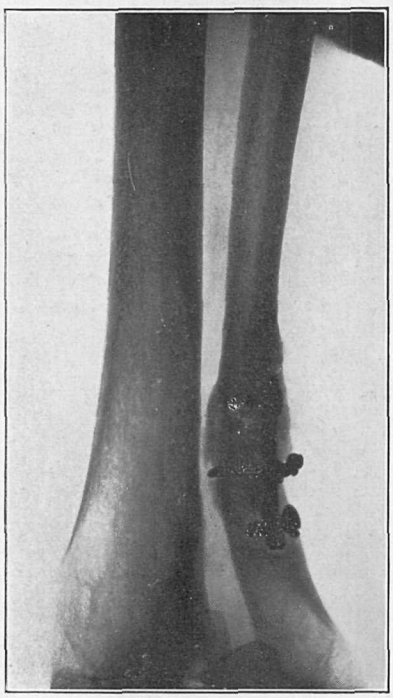

FIG. 5.—This skiagram gives the reason why plating the fibula is insufficient treatment in cases of Dupuytren's fracture.

Skiagrams Illustrating Mr. Rowlands' Lecture.

Fracture-Dislocations of the Ankle.

CLINICAL LECTURE BY Mr. R. P. ROWLANDS.

Gentlemen,—I have taken this subject for my lecture because I see so many unsatisfactory results of these fractures at my Orthopædic Out-patients. Such bad results are walking advertisements of lack of skill and care.

a. Pott's Fracture.—There seems to be a great deal of doubt as to the definition of these fracture-dislocations, and it is a common mistake to regard a fracture of the lower part of the fibula without any displacement at the ankle as a Pott's fracture, whereas in reality the essence of a Pott's "fracture" is the "dislocation" at the ankle. This is clearly shown by Pott's own description, which is as follows:—". . . A case which, according to the general manner of treating it, gives infinite pain and trouble both to the patient and to the surgeon, and very frequently ends in the lameness and disappointment of the former and the disgrace and concern of the latter. I mean the fracture of the fibula, with dislocation of the tibia."

Many of those who claim that they get good results from the conservative treatment of Pott's fracture mistake for it this simple and comparatively harmless fracture of the fibula, which rapidly gets well and leaves no permanent disability. In a Pott's fracture the fibula is broken in the lower third, and either the internal malleolus is detached from the tibia or the internal lateral ligament is torn. These injuries allow the external malleolus to move outwards and backwards, rotating on the inferior tibio-fibular articulation. The splendid mortise made by the tibia and fibula for the reception of the astragalus is thus widened and spoilt. Instead of allowing only flexion and extension of the ankle, it now permits eversion of the astragalus and of the foot. Moreover, the astragalus not only rotates so that the outer edge of its superior articular surface is uppermost, but it is also drawn backwards out of its natural contact with the lower end of the tibia by the unbalanced traction of the powerful heel tendon. Skiagraphic side views often show the posterior inferior edge of the tibia lying on the middle of the superior articular surface of the astragalus, or even sometimes on the neck of the astragalus.

b. Dupuytren's Fracture.—In this there are the lesions already described under Pott's fracture, and in addition either the inferior tibio-fibular ligaments are torn or there is a vertical fracture in the tibia just mesial to the tibio-fibular articulation. The outer and upper edge of the rotated astragalus then becomes the apex of a wedge which gradually increases the separation of the tibia and fibula when the patient stands. The astragalus also acts as a wedge when an oblique fracture of the fibula extends upwards and outwards from just below the inferior tibio-fibular articulation. It is particularly difficult to bring this small lower fragment into its natural position, and the usual result is that a weak and unsatisfactory union occurs with the external malleolus abducted and displaced backwards. As soon as the patient walks the astragalus increases the separation (*vide* fig. 2). I believe that these fracture-dislocations, especially those associated with the name of Dupuytren, are the most serious fractures of the lower limb. They are more serious than intra-capsular fracture of the femur, especially as they generally occur in working men in the prime of life, when they are most exposed to violent injuries, whereas an intra-capsular fracture is almost limited to old people whose work is done. The earning capacity of a working man who has sustained one of these injuries is much depreciated; in fact, some of them never earn anything again, and frequently they are discharged from the Police or the Army. Recently I have seen several at my Out-patients who have not been able to do any work for two years from the date of their accident. Unfortunately the abduction, eversion, and flattening of the foot, as well as limitation of movement, increase with time. When there is the slightest uncorrected abduction of the foot, when the patient begins to walk the weight of the body inevitably increases the deformity, and this is especially true of Dupuytren's fracture. Only those who watch these patients for years after their accidents know how bad the ultimate results are, and how serious from an economic point of view. They come to Orthopædic Out-patients with rigid abducted and flat feet, seeking instrumental support or secondary operation. Osteo-arthritic changes soon take place in the ankle and metatarsal joints. Later the knee and hip become similarly affected.

Diagnosis.—In both Pott's and Dupuytren's fractures the foot is displaced backwards and outwards, and the heel is raised so that the foot is in the equino-valgus position. The foot is both abducted and everted, so that the toes turn outwards and the sole faces downwards

and outwards (fig. 1). The stump of the internal malleolus is very prominent on the inner side, and may even pierce the skin. It is difficult to differentiate between Pott's and Dupuytren's fractures. A greater widening of the ankle as measured by callipers is supposed to indicate Dupuytren's fracture, but this is by no means reliable, for the external malleolus is often displaced more backwards than outwards until the patient stands later on and brings the astragalus wedge into full action. As in most fractures, an X-ray examination is essential, and the ankle should be examined in two planes, so that both the lateral and the antero-posterior displacements may be seen. In this way it is possible to distinguish these two fractures, but it must be remembered that although the inferior tibio-fibular ligaments may be torn, the astragalus need not necessarily separate the two bones until the patient stands. The separation of the two bones may be demonstrated by pushing the foot upwards during the X-ray examination.

Treatment.—The complete reduction of these fractures is admitted to be very difficult. Some years ago when, fired by Mr. Arbuthnot Lane's brilliant pioneer work, I wrote a paper on this subject in the GUY'S HOSPITAL GAZETTE*, there was some doubt upon this question, but the introduction and the improvement of skiagraphy has made it easier to demonstrate the want of perfect apposition that exists after the most careful efforts at reduction. It is only by operation that the broken fragment can be brought into perfect apposition, and maintained in this position until bony union occurs. There are different views, however, as to the need of getting perfect apposition in all cases, for some maintain that good functional results can be obtained by careful conservative treatment, and as this method exposes the patient to no risk to life or limb, it naturally remains popular with the more conservative surgeons. My experience of the late results of the conservative treatment in working men is such as to lead me to believe that early operation is necessary for obtaining a good functional result in them. There is no doubt, however, that operations for simple fracture are not to be lightly undertaken, and that every aseptic precaution must be taken in order to avoid risk of infection. Considerable mechanical skill and experience is also necessary for the efficient performance of the operation, but the subcutaneous position of the fibula in its lower third makes it unusually easy to deal with. From an ordinary Pott's fracture with the fibula broken about two or three inches above the malleolus, very good results can be obtained by wiring or plating the two fragments together in good apposition, care being taken to bring the bone out at the line of fracture, and thus to adduct the external malleolus to its natural position. The internal malleolus is then forced into its natural position, and there is rarely any need to expose it. But this method is inadequate for a Dupuytren's fracture, because it does not prevent the separation of the tibia and fibula. As soon as the patient begins to walk, the tilted astragalus acts as a wedge which gradually increases the separation between the two bones and ultimately cripples the patient. To prevent this, I have on several occasions during the last two years passed a screw horizontally through the fibula and tibia about a quarter of an inch above the ankle-joint. Before the screw is passed the contiguous surfaces of the two bones are pared so that bony union may take place between them. This makes the ultimate result independent of the permanent presence of the screw, which may be removed at any time after eight weeks should it cause any irritation; but this has not occurred in my experience (*vide* figs. 3 & 4). Mr. Arbuthnot Lane has passed a long screw in a similar way in treating a low Pott's fracture.* The method seems to me to be even more necessary and especially valuable in the treatment of Dupuytren's fracture. Remembering the difficulties of the diagnosis between these two fractures even with the aid of the Röntgen rays, it is clearly wise during every operation for a supposed Pott's fracture to expose the inferior tibia-fibula articulation, and thus to ascertain if its ligaments are torn. If they are, it only takes a few minutes to pare the contiguous surfaces, and to pass a screw to hold the two bones firmly together. This precaution will often contribute to the perfect success of the operation. The screw does not interfere with the natural movements of the ankle-joint, but yet restores its normal stability. The following is a brief description of the operation upon the patient who is the subject of this Clinical Lecture.

A young man, J.O., aged 30. Alcoholic and stout. Admitted into the accident ward on December 15th, 1910, having sustained a Dupuytren's fracture of the left ankle. Endeavours were made to replace the bones in position without avail. A skiagram taken by Dr. Morton after these endeavours showed the presence of Dupuytren's fracture with considerable separation between the tibia and fibula, and

* GUY'S HOSPITAL GAZETTE, February 29th, 1896, p. 118.

* The Operative Treatment of Fractures, p. 71, fig. 59.

the outer upper edge of the astragalus was acting as a wedge separating the two bones. The internal malleolus was broken. In spite of the fact that the man was an alcoholic, an operation was advised and performed two days after the accident. Every care was taken to sterilize the skin. The patient took a great deal of anæsthetic and was riotous under it. A broad flat tourniquet was applied just below the knee. Endeavours were made to correct the deformity by traction and manipulation. The tendo-Achilles was divided subcutaneously. A long curved incision was made in front of the lower end of the fibula. The broad flap thus made was separated from the fibular periosteum and drawn backwards. The skin was entirely covered by gauze pads which were carefully secured to the subcutaneous edges of the wound by means of tissue forceps. The peroneus brevis, being the most powerful abductor of the foot, was sought and divided. The outer part of the lower end of the tibia was defined, its inferior and external articular surfaces being well displayed. Much dark blood and clot escaped from the ankle-joint. Traction and adduction of the foot were made by Mr. Cole while the lower end of the leg was drawn outwards. These manipulations failed to bring the fibula into its natural position, and it was necessary to use an elevator to prise it out at the site of fracture and to apply a long-handled Lane forceps to the lower fragment in order to bring this into its natural relationship with the lower end of the tibia. The surfaces of contact between the tibia and fibula were pared. Then, while a good position was maintained, a long steel screw was driven horizontally through the lower ends of the fibula and tibia about half an inch above the lower articular surface of the latter. The fracture in the fibula, which was about three inches up, was thus brought into a good position Plating at the site of fracture was seen to be unnecessary (*vide* fig. 4). Moreover, the foot was brought into a good position, and the internal malleolus was also approximated to its original position on the lower end of the tibia. The deep fascia was sewn with catgut and the skin with fishing gut. The wound was dressed and firmly bandaged before the tourniquet was removed. The operation lasted about twenty minutes. A comfortable back splint was applied and the limb suspended in a Salter's cradle. A skiagram taken a day or two after the operation showed the bones to be in a perfect position. Dr. Morton, who did the X-ray examination, was puzzled by the appearance of the screw, for he had not examined another case of Dupuytren's fracture which had been treated in this way. The patient left the hospital within three weeks of the operation, and he has since made excellent progress towards complete recovery.

The best time to do the operation is as soon as possible after the accident, before there is much effusion of blood and inflammatory exudation with shortening of the muscles. I have performed it several months after the accident, but it is not nearly so easy, owing to the shortening of the soft parts, the presence of much callus, and the atrophic changes which take place in the malunited bones. One of

FIG. 1.—A foot two years after conservative treatment of Dupuytren's fracture. Note abduction and eversion.

these patients, a girl aged 21, came to see me on January 26th, 1911, showing a very good result, the limb being both shapely and useful. She had been sent to me by Dr. Mayhew in May, 1910, three months after sustaining a very severe Dupuytren's fracture. Imperfect union of the fibula had occurred and the foot was getting more and more abducted, the astragalus being driven further and further up between the tibia and fibula. The reduction was so difficult at the operation that I had to remove a portion of the body of the astragalus before I was able to bring this bone forwards into its

proper relation with the tibia. X-ray plates kindly taken by Mr. Shenton now show perfect bony apposition and union. In a private case of oblique fracture of the fibula running upwards and outwards from just below the inferior tibio-fibular joint, I have successfully passed a screw *inwards, upwards and forwards*, through the replaced malleolus and the lower end of the fibula far into the tibia. It is clear that this method is far better than plating at the site of fracture (*vide* fig. 5). It is certainly very simple and effective. I think it is the only satisfactory treatment of Dupuytren's fracture, and that it should be always carried out unless there is some grave constitutional objection to an anæsthetic. When circumstances are against the safe conduct of an operation for Pott's fracture the following method may be adopted:—

The fracture should be "set" as soon as possible after the accident. A general anæsthetic is given and the tendo-Achilles is divided. Bending the knee rarely relaxes the tendo-Achilles sufficiently. Moreover, when the knee is straightened and the anæsthetic passes, this powerful displacing force returns into action. Powerful traction is then made upon the foot, and the deformity corrected as far as possible by manipulation, the foot being inverted and adducted and brought into the over-corrected position. It is then fixed at once in a Bavarian plaster of Paris splint and suspended to limit swelling and pain. The splint can be opened up the front, but not removed if it compresses the limb too much. From the fifth day the foot and leg are massaged once daily. This is easily done without risk of reproducing the deformity. Each half of the splint in turn is folded back while the limb is supported by the other. After ten days both active and passive movements of the ankle-joint are freely carried out every day, but the patient is not allowed to stand on the foot for at least eight weeks from the time of the accident. Before this time there is much risk of abduction, for the soft union of the frail fibula easily gives way under the weight of the body. For all cases of Pott's fracture it is wise to support the ankle for at least six months by means of an external jointed steel with a strong T-valgus strap, and the inner border of the boot should be raised from one-eighth to one-quarter of an inch.

The question remains as to what is the best treatment for malunited Pott's or Dupuytren's fracture. After an interval of more than four months it is rarely wise to attempt to reconstitute the part. A perfect restoration of the bones and joints is then impossible, and an attempt to do it will generally end in the sacrifice of the astragalus or of the movements of the ankle-joint. In these cases it is better to be content with the restoration of the line of the limb. A great improvement can be obtained by bringing the centre of the foot under the vertical axis of the limb, at the same time restoring the upper surface of the astragalus to the horizontal position so that its outer edge no longer acts as the apex of a wedge. The best way of doing this is to remove a wedge from the inner side of the tibia just above the ankle. The base of the wedge should be wider in front than behind, so that backward and upward dislocation of the astragalus may also be compensated. The tendo-Achilles and the peronei are divided and the ankle-joint freely moved before the bone is exposed. A supporting instrument, massage and movement then enable the patient to walk about and work much better than before. An operation undertaken within a few hours or days of the fracture should become more common, for this alone can restore the full function after most of these serious fractures.

Appointments.

Medical School Appointments.

The following appointments have been made by the House Committee on the recommendation of the Medical Committee:—

Chief Clinical Assistant in the Neurological Department.—Mr. W. Johnson.

Clinical Assistant in the Neurological Department.—Mr. P. S. Price.

Out-Patient Officer.—Mr. F. A. Dick.

Clinical Assistant in the Throat Department.—Mr. T. B. Layton.

Ophthalmic House Surgeon.—Mr. H. L. Attwater.

Civil.

CARLYLL, H. B., M.A., M.D. (Cantab.), to be Assistant Physician to the Belgrave Hospital for Children.

COLE, P. P., M.B., B.Ch., F.R.C.S., to be Surgeon to the West Ham and East London Hospital.

KILLPACK, C. D., M.R.C.S., L.R.C.P., to be Assistant Medical Officer at the Hammersmith Infirmary, Shepherd's Bush.

From the Gazette's Special Pathologist.

H. J. H., AMERSHAM.—Blood serum, inoculated with this swab, gave after incubation a scanty growth of micrococci, but no Klebs-Löffler bacilli were found.

A., CHADWELL HEATH.—This sputum contains some muco-pus, but no tubercle bacilli are seen to be present.

PATHOLOGIST.

Guy's Hospital Debating Society. Ladies' Night.

A MEETING of the Society was held on Saturday, January 28th, the president, Dr. Shaw, being in the chair. The subject chosen for debate was one peculiarly suitable for "Ladies' Night," and there was a large attendance of ladies, chiefly composed of students from the Royal Free Hospital.

Mr. ORMOND proposed—"That this House disapproves of the admission of women to the medical profession." In opening the debate, Mr. Ormond said that some might consider the motion out of date, for since 1859, when Dr. Elizabeth Blackwell became the first registered medical practitioner of her sex, there had been steady and increasing progress in the extent to which women had been admitted to the medical profession. Nevertheless, some dare to question the advisability of such progress. Could it be considered a good thing either for women as a whole or the profession at large? In endeavouring to answer this question it was necessary to consider what are the essential qualities requisite in a good medical practitioner, and to see whether these qualities were present in a higher degree amongst women than amongst men. Certain essential differences between man and woman are obvious. Apart from such external differences as dress, man is fundamentally active and progressive, the doer of things, the one who speculates, whilst woman has the ordering and arrangement of affairs. It is she who judges the crown of conquest, but who is herself shielded from danger and temptation. A doctor requires as essentials for his work physical strength, honesty, self-control and self-reliance. In what degree do we find these qualities present in woman as compared with man? With regard to intellect, it is true that woman claims superiority, but it is perhaps debatable whether a large amount of intellect is a necessity in the profession. In the question of physical strength, man has undoubtedly the advantage, and even as regards honesty and general morals he is also possibly superior. In self-control and self-reliance, woman is undoubtedly much behind man. What, then, has the medical profession to gain from the admission of women? Nothing that cannot be obtained equally well from men. Women thus become a dead weight and an incubus in an already over-crowded profession, another deplorable example of the modern tendency of women to compete with men. This is especially grievous, as the class from which women doctors are drawn is not a poor one, and the women enter into competition with men with an unfair economic advantage. It rests with the opposition to prove that women have in any way shown themselves capable of doing in medicine what men have not or cannot do themselves.

Mr. RYLE opposed the motion. He apologised for his position as leader of the opposition, and explained that it was only in consequence of his failure to obtain a lady doctor either from the Royal Free Hospital or the W.S.P.U. who would undertake the task. Coming to the motion for debate, Mr. Ryle pointed out that women are now firmly established in the ranks of the medical profession, and that disapproval of their presence there can be only passive and academic. Moreover, women doctors, as a whole, have fully gained general public approval and respect, and what disapproval still remains is old-fashioned and almost anachronistic. What, however, is the chief basis of the claim of the sex that is supposed to be gentle to be admitted freely into medicine? The subject may be regarded from four aspects: justice, history, economics and necessity. From the standpoint of justice, we have now outgrown the so-called "days of chivalry," and an era of mutual respect in which man regards woman as undoubtedly a human being has set in. Until lately man has tried to monopolise the field of medical science, and even yet some are to be found who retain the old idea of man's authority over woman. Man has constantly judged questions from the male standpoint, not remembering sufficiently that woman is morally, mentally, and physically diverse from himself, and as such requires direct representation in medicine as in other fields of labour. Historically, we find that in regard to midwifery, woman has practised medicine from the earliest times, and it is natural and right that this branch of the doctor's work should be specially entrusted to her care. Economically we are faced with the marked numerical excess of women over men in this country, and medicine is a most suitable occupation for many of the surplus. Furthermore, in the subject of the diseases of women and children, there is an absolute necessity for women doctors, as only they can fully understand and treat such complaints. In the branches of public health and research there are also abundant openings for woman's peculiar capabilities. Above all, why applaud women nurses and not also women doctors?

Mr. BARROW-CLOUGH seconded the proposer of the motion, and expressed his disagreement with the opinions of Mr. Ryle. There was no necessity for women doctors either in midwifery or elsewhere. Conventions and nowadays being broken down on every hand, and as no man is purely male or woman purely female, the splitting up of medicine into parts suitable for men and parts suitable for women is quite unnecessary. Women, however, have a perfect right to do what they like, but though we may not prevent their entry into medicine, we may certainly disapprove of it. Evolution has emphasised the differentiation of the sexes in regard to their most suitable work, and the duties of a doctor are better performed by men than by women.

Mr. STEPHENS, in seconding the opposition, pointed out that specialism was all-pervading, and had come to stay. There was even specialism in maternity, and certain strains had now been developed which seemed incapable of motherhood. For these there must be some alternative outlet, and what more suitable than medicine? We must also remember that in the earliest days of medicine it was the women who made the decoctions and emplastra. Woman, till recently lazy and parasitical, was now seeking for freedom, and we must not stand in her way.

The debate was then continued by a lady visitor, who pointed out that the remark that man was not purely male nor woman purely female might be used with equal propriety as an argument against the motion. Again, the proposers admitted that woman was superior to man in unselfishness and kindness; surely a strong argument for lady doctors. There are many women who greatly dislike having to be examined by male doctors, and this in itself is a great argument for women in the profession, as the mere antipathy of the patient to the doctor may considerably destroy the possibility of successful treatment.

SISTER LYDIA rose to oppose the motion, and considered that as a nurse no other course was open to her. Where can the line be drawn between nursing and doctoring, given that an individual woman has sufficient strength and opportunity to undertake the latter? Those who approve of women as nurses but not as doctors are illogical. In any case, the movement for women doctors is making steady progress, and to attempt to stay it is as hopeless as to resist the rising tide. We must remember, too, that women have only comparatively recently acted as nurses, but they have made the best use of their opportunities in that direction. The argument that woman's place is the home is a real one, but is its application always possible? The world of strife is ever present, and woman cannot be guarded entirely from it, but would rather wish to help man in righting the wrongs around them. The contention that in medicine woman cheapens the field of labour is surely an ungenerous one; why should women only have the poorly-paid professions open to them? Women have the reputation of being talkers, but so far men have the right of speech. Still, we must look forward to a century hence when woman will have every opportunity, and such a motion as the present will be inconceivable.

Another lady visitor then pointed out that in India women are doing work as doctors in Zennanas that it is quite impossible for men to do; and she was followed by the Resident Medical Officer of the Royal Free Hospital, who desired to give his experience of "the wild beast in her native lair." He found that there were two classes of women medical students. Firstly, a class, few in number, who had been suddenly enthralled by the idea of medicine, and, though very unsuited for the profession, persisted in it, but without great success. The second class comprised those who considered they had a "calling" for medical work, and these were all that could be desired, provided only that they possessed the essential quality of a sense of humour. Without that they were lost. Women doctors must be regarded as yet as children in medicine, and time would show whether they were to be of permanent value. In any case, if they are useless they will die out quite apart from our approval or disapproval.

After another lady visitor had expressed her opinion that women were of use in medicine to tidy up after the male doctors, a gentleman rose and poured scorn on the movers of the motion. Woman must be left to herself, and man must not attempt to interfere with her doings. To say that women were not self-reliant was simply rubbish, and the so-called psychological differences between men and women were largely non-existent. In the field of inspection of school children women doctors were especially valuable. To attempt to prevent women from entering the medical profession was futile, and to disapprove thereof was mediæval.

Mr. SCHLESINGER upheld the motion, and expressed his emphatic disapproval of the desire of women to enter the medical profession. If, however, they want to, we must let them. The constant use of the word "lady" in the debate was irritating in the extreme.

He was followed by a lady who supported the motion on the ground of the existence of the British home. Women are admittedly in their element in the home, and if they study medicine, who will not but fear the result? Imagine the application of hygiene and health to the home! No pictures, no carpets, no comfortable smoking chairs; indeed, no smoking at all! Think of hygienic food; a very dreadful thing; still more awful, hygienic clothes. Think of the effect on the dresses of the fair sex. Considering all these things, who can oppose the motion? Moreover, awesome thought, if women persevere in medicine, they will discover things and thus add to the already intolerable burden of things a medical student must know!

Dr. MANN considered the question of the British home was irrelevant. Women can and do fill a definite place in medicine, especially in work with children in the schools, and we should be anxious to encourage them in this.

A gentleman visitor then expressed himself as mildly amazed at the wording of the motion, and still more so at the debate. The burden of proof lay with the proposers, not with the opposition. In medicine a facility for dissembling was frequently of value, and surely women even excelled men in the power of telling a realistic falsehood.

Mr. SANDISON pointed out that the psychological differences between men and women were very great, and there could be little doubt that on the whole medicine was more suited to man than to woman. It could only be the exceptional woman who would do well in the medical profession, and it was necessary to urge the need for great caution and consideration on the part of those

women who proposed to take up medicine. The essential for a doctor was the power of accepting and bearing up under extreme responsibility, and this power was present to a far greater extent in men than in women. Nursing was not the same as doctoring, for a nurse had relatively little responsibility, and thus capacity for the one did not imply capacity for the other.

There being no further debate on the motion, Mr. Ryle and Mr. Ormond replied, and the House voted as follows: For the motion, 36; against, 72; majority against the motion 36, and the motion was therefore declared lost.

Mr. Ormond proposed, and Mr. Ryle seconded, a hearty vote of thanks to Dr. Shaw for presiding, and this was carried by acclamation. Dr. Shaw briefly replied and the House then adjourned for refreshments.

Guy's Hospital Physiological Society.

A MEETING of the Society was held on Monday, January 30th, in Class-room 2, at 4 p.m. The chair was occupied by Dr. Cameron, and forty-two members were present.

An interesting paper was read by Mr. MacManus on "The Physiology of Athletic Training."

The subject could be divided under three headings, namely, Fatigue, Breathlessness and Training.

Fatigue is due to three chief causes: (1) Traumatism of the muscle substance, the sensory nerve-endings being rubbed and twisted by the movements of the muscular fibres; (2) by the accumulation of certain waste products of dissimilation which are toxic in character, the chief of which are sarcolactic acid, acid potassium sulphate, and carbon dioxide; (3) the consumption of the actual contractile elements of a muscle; this is the explanation of the long duration of fatigue in a muscle which needs a considerable time to reassimilate its lost elements. Perhaps, however, the chief factor in fatigue is the brain. The more brain power used in producing muscular work the quicker fatigue comes on, and, *vice versa*, the more automatic and subconscious an exercise is, the less fatigue is felt. A man reads best when he is fit, and conversely to be fit his brain must be normal and free from any depressing emotions. Absolute fatigue, like that seen in the laboratory, is never reached in the living subject: the muscles are never so tired but that some stimulus, either mechanical or emotional, will still cause them to contract.

Breathlessness.—The phenomenon of breathlessness at first seems to admit of a very easy explanation, the belief being that breathlessness was in direct proportion to the work done. This effect was said to be due to increased production of CO_2 in the muscles, which raised the arterial CO_2 percentage, and thus the respiratory centre was stimulated; and this is quite true, but the respiratory centre does not react to the percentage of CO_2 in the blood, but to its acidity. If the work done is performed in large quantities and in a short time, the increased respiration cannot expel all the CO_2 as it is formed, and the subject becomes breathless. But if muscular work is continued, his CO_2 tension and respiration fall, and he is now able to perform the work without distress. This is known as second wind, and the probable explanation is that the subject has learnt by degrees to co-ordinate his actions for the best working of his respiratory functions, whereas at first all the movements were irregularly performed. Now, as we have noticed, lactic acid is also produced by muscular work, and it also raises the acidity of the blood, and as the kidneys work more slowly than the lungs there may be an accumulation of lactic acid in the body which by itself would produce breathlessness, although the production of CO_2 was normal.

Training.—The keynote of any correct system is Progression. By this is meant that the work done is increased by degrees until the maximum amount of work is obtained. It is the violation of this law that causes more than half the cases of overstraining and athletic heart. All methods of training should have these four objects: 1st, to increase the respiratory power of the subject; 2nd, to increase his muscular power; 3rd, to habituate his muscles to the actions they have to perform in the sport for which he is training; 4th, to increase his powers of resistance. Gradually increased exercise in running is without doubt the most natural and the best way of procuring increased respiration, and any exercise which calls for deep inspirations is beneficial. The second and third objects should go hand in hand. A man training for rowing should take the greater part of his exercise in rowing, and the footballer should play as much football as he can. This should not be overdone, however, or staleness will ensue. All systems of gymnastics are bad for training, for they teach the muscles to perform useless actions and thereby tend to make the subject clumsy.

The next meeting of the Society will be held on Monday, February 20th, when Mr. W. K. McKay will read a paper on "Immunity."

H. W. EVANS, Hon. Sec.

Papers by Guy's Men.

W. H. Maxwell Telling, M.D., B.S. Lond., M.R.C.P. Lond., Assistant Physician to the Leeds Infirmary; and Clinical Lecturer in Medicine to the University of Leeds: "Nodular" Fibromyositis, an Everyday Affection, and its Identity with So-called Chronic Muscular Rheumatism.—*Lancet*, 21st January, 1911.

List of Books

Received in the Wills Library since 1st June, 1910.

Box's Post-Mortem Manual.
Treves and Hutchinson's Operative Surgery, vols. 1 and 2.
Dieulafoy's System of Medicine.
Goodhart and Still's Diseases of Children, 9th edition.
Luff and Gandy's Chemistry, new edition.
Herman's Difficult Labour, new edition.
Whitla's Materia Medica and Pharmacy, 9th edition.
Bramwell's Clinical Studies, vol. 5, 1907.
Gray's Diseases of the Ear.
Allen's Vaccine Therapy, 3rd edition.
Blair Bell's Gynæcology.
Whitelock's Sprains and Allied Injuries of Joints.
Gadd's Synopsis of British Pharmacopœia.
Berry Hart's Evolution and Heredity.
Fein's Rhinology and Laryngology.
Brown's Amœbic Dysentery.
Langdon Brown's Physical Principles in Treatment.
Porter's Sanitary Law.
Walton's Fractures and Separated Epiphyses.
D'Arcy Power's System of Syphilis, vols. 2 to 6.
Blair's Errors of Refraction.
Plummer's Practical Physiological Chemistry.
Cunningham's Practical Anatomy, 4th edition, vols. 1 and 2.
Guacher's Diseases of the Skin.
Stewart's Physiology.
Lambkin's Syphilis.
Schäfer's Essentials of Histology.
Ashby's Physiology.
Haas' Organic Chemistry.
Murray's Hernia.
Kidd's Urinary Surgery.
Howard Marsh's Disease of Joints.
Horder's Clinical Pathology in Practice.
Kellas' Inorganic Chemistry.
Pye's Elementary Bandaging.
Pembrey, Beddard, &c., Practical Physiology.
Aaron's Gynæcological Therapeutics.
White's Book-keeping for Dentists.
Thomson's Outlines of Zoology, 5th edition.
Sutherland's Dispensing Made Easy.
Kleinschrod's Inherent Law of Life.
Steven's Medical Diagnosis.
Vincent's Acute Intestinal Toxæmia.
Ross' Induced Cell Reproduction.
Monro's Manual of Medicine.
Campbell's Aids to Pathology.
Pflüger—Archiv für die gesammte Physiologie des Menschen und der Thiere, 1868 to 1909.
Du Bois-Reymond — Archiv für Physiologie, 1877 to 1908.
Zeitschrift für Hygiene und Infektionskrankheiten.
Journal of Hygiene, No. 3, vol. 10, from Surg.-Gen. Branfoot, I.M.S.
Journal of Physiology, vol. 40 and vol. 41, parts 1, 2, 3, 4 and 5, from Dr. Hertz.
Pharmaceutical Journal, weekly, from Dr. French.

Miss Newton Testimonial.

FURTHER LIST OF DONATIONS.

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Nursing News.

Matron's Office.

On January 12th, Miss Ellen M. Thompson, who has been acting as Sister-in-Charge of the Wardmaids since November, 1908, and Miss M. J. Lyons, who has been Sister-in-Charge of Mary Ward since October, 1909, left the hospital to take up private nursing. Miss K. Hickman, Sister-in-Charge of the Theatres, has been transferred to Mary Ward, Miss Annie Tilbury, Surgical Night Sister, has been transferred to the Theatres, and Miss Nora Kingzett, who completed her training in March last and has since been on the Private Nursing Staff, has been appointed Probationary Surgical Night Sister. Miss Unity Kinsman, who completed her three years' training in December, has been appointed Probationary Sister-in-Charge of the Wardmaids.

On December 6th, Nurse R. Miller was transferred to Queen Ward, and Probationer Todd was appointed to succeed her as Head Nurse in the Theatres.

On December 7th, Probationer Eaton was appointed Head Nurse in Addison Ward.

On December 12th, Nurse Preston left the hospital on completion of her three years' training, and Probationer Salter was appointed to succeed her as Head Nurse in Naaman Ward.

On December 12th, Nurse Edith Blenkarn took up her duties as Staff Nurse in the Out-patient Department.

On December 16th, Nurse Sutton, Head Nurse in Martha Ward, left the hospital on completion of her three years' training, and Probationer Cox was appointed to succeed her as Head Nurse.

On December 16th, Nurse Skinner left the hospital on completion of her three years' training, and Probationer Schlagentweit was appointed to succeed her as Head Nurse in Job Ward.

On December 28th, Probationer Kirby was appointed Head Nurse in Charity Ward.

On December 31st, Nurse V. Smith, Head Nurse in Bright Ward, Nurse F. Ford, Head Nurse in Dorcas Ward, and Nurse F. Thompson, Head Nurse in Martha Ward, left the hospital on completion of their three years' training. Probationer Kirkham was appointed Head Nurse in Bright Ward, Nurse Stewart was transferred to Dorcas Ward, and Probationer Oldershaw was appointed Head Nurse in Martha Ward.

On January 2nd, Nurse C. Jones left the hospital on completion of her three years' training, and Probationer Fyson was appointed to succeed her as Head Nurse in Luke Ward.

On January 6th, Nurse J. Allen left the hospital on completion of her three years' training, Nurse E. Ford, Head Nurse in the Surgery, was transferred to Lazarus as Head Nurse, and Probationer Iles was appointed Head Nurse in the Surgery.

On January 23rd, Nurse Campion left the hospital on completion of her three years' training, and Probationer Mannell was appointed to succeed her as Head Nurse in Esther Ward.

On January 24th, Nurse Morgan, who has been acting as Staff Nurse in the Surgery, left the hospital.

On January 30th, Nurse Gautier, who has been acting as Staff Nurse in the Electrical and Light Department, left the hospital.

The result of the Probationers' Examination in Medicine, held in December last, is as follows:—

First Class. — Probationers Angoye, Beardshaw, Bishop, de Carteret, Dickson, E. Fletcher, Freshney, Garnet, Hocking, Johnson, G. Jones, Keegan, Kelsey, Malkin, Mangelsdorff, Masters, Maughan, Openshaw, Paul, J. Pearson, W. Pearson, Pike, Probert, Sawyer, Sherrard, Sinclair, E. V. Smith, Sullivan, Sutherland, Witchell.

Second Class.—Probationers Aspelin, Battley, Bollard, Brooks, F. Brown, Cromar, M. Coulton, Davis,

Dickin, Douglas, Druce, Eagle, C. Edwards, B. Evans, W. Evans, Feeney, Finlow, E. Fletcher, Fothergill, Foxon, Gilkes, Gooderham, Gwilliam, Hansen, Hawkins, Hewitt, Hirst, Jagger, A. Jones, Jordan, Lewin, Maher, Malonnek, Mansfield, G. Moore, Mott, Oliver, O'Rorke, Patterson, Percy, Purves, Roach, B. Scott, Selby, Servais, M. Simpson, S. Simpson, Skou, Spurway, Squire, Sterling, Stretton, Studdert, Thorpe, Trice, Trimby, Twose, Tyers, Weighill, Willett, Wittrick.

Sport.

Rugby Football.

THE UNITED HOSPITALS v. ROYAL NAVY.

It was a sterling match at Queen's Club on January 19th between the above sides. A fair crowd of spectators assembled to witness what is always a very sporting game. Good hard play, great pace, and fine tackling, all being scrupulously fair — it is small wonder that Rugby followers always enjoy the fixture. The Navy won; they just deserved to, because they lasted just a little better and a little longer than the Hospitals. The final score was 9 points to 6.

Only three Guy's men were playing; Hind and Stringer were asked, but they found it impossible to accept. The Hospitals were the first to attack, Batchelor actually getting past Lyon with the ball at his feet very early in the game, but the ball went dead. Royle and Peet combined prettily on resuming. With play in midfield, the Hospitals got going, and Richards had a fine chance of sending Stokes on, but Richards preferred to kick. Beyers at full back was very steady and his touch finding accurate ; he nursed his forwards. With twenty minutes gone, the first try was registered. Pocock and Heale commenced the movement; Morris carried it on finely; a wide pass to Batchelor, well gathered, resulted in a try far out. Stokes' excellent kick just failed. Peet intercepted a pass and got past Beyers, but Richards tackled him well close to the line. Then Heale put Morris in with the second try, Morris swerving very cleverly through the opposition. Nothing further was scored before half-time, the Hospitals then leading by 6 points to nil.

Pocock got past Lyon very soon after the restart, but Lyon reached the ball which had been kicked past him first, after which the Navy forwards found more of their game. They gradually settled down to very strong play. Again and again Peet and Royle on the left wing were pulled up by good defence. Then a student got off-side; but Burgess Watson's kick failed, although the position was fairly easy. The end was now in sight. Fiddian was almost sending Richards over, but the pass was forward. The pace was tremendous, the sailors doing their utmost to save the game, and most dramatically they achieved their aim. Campbell dropped a grand goal, and just afterwards Royle dropped over with a try by the post. Burgess Watson goaled, and the game ended—

Royal Navy, 2 goals (1 dropped) ... 9 points.
United Hospitals, 2 tries ... ... 6 points.

UNITED HOSPITALS.—C. F. Beyers (Bart.'s) (back); T. B. Batchelor (London), H. G. Morris (London), E. D. Richards (Bart.'s), A. L. Stokes (Guy's) (three-quarters); A. S. Heale (London), H. A. Pocock (Bart.'s) (halves); A. E. Evans (Bart.'s), J. V. Fiddian (Bart.'s), C. S. L. Roberts (Guy's), W. S. Stranack (Guy's), G. M. Chapman (London), P. Foote (London), H. Whyte (London), J. S. Sloper (St. Thomas's) (forwards).

GUY'S v. OLD MERCHANT TAYLORS.

The meeting with the Old Merchant Taylors invariably produces a hard, keen and close game. The match at Honor Oak Park on Saturday, January 21st, was no exception to this rule, in fact, it rather accentuated it, being a splendid game throughout ; anybody's win till almost the final whistle. Guy's, however, won by 8 points to 3. Two years ago when the same sides played at Honor Oak Park, Guy's won by 9 points to 5. The man to be watched in this year's match was O'Callaghan, the Irish International, but he was splendidly marked by Stringer, who with unerring certainty collared him on every occasion. A contemporary states, referring to the Taylors' try, " a bout of passing ended in O'Callaghan for the first time tricking Stringer, and scoring in turn." This was scarcely difficult for the Irish International, as Stringer had just before been injured, and was resting by the goal post, by the aid of which he was endeavouring to balance himself on his injured limb. No one grudges the Taylors their try; it was accomplished by fine passing.

Guy's forwards commenced the game with fine energy, and one anticipated another display such as they gave against the Harlequins. The forwards, led by Roberts, forced the Taylors to concede a touch-down. The Taylors replied with three combined three-quarter attacks, each one ending with O'Callaghan getting off, to be brilliantly tackled by Stringer, whose defence was superb. A forward rush by the visitors was stopped by Harkness, but a free kick to them looked ominous; however, it fell a little wide. From the drop out, Guy's dribbled away, and Stranack gained the line, but could not get to the ball before the Taylors' back. A fine opening was made through the smartness of Saner and Medlock, the ball travelling to Lacey, but his pass to Stringer was too awkward to gather. A useful tackle by Stokes on the other wing, who had a light but speedy opponent in Will, brought the first half to a close.

Resuming, Guy's forwards, all of whom played well, got the Old Boys penned on the line. A scrum followed, and Saner securing, plunged for the line. He was, however, held. Another scrum and Taylors secured the touch, " drop out " bringing relief. Another duel between O'Callaghan and Stringer was followed by Lacey breaking away splendidly, but why he kicked instead of going " all out," was a mystery. Levy, the full back, easily cleared back to the home " 25." A mark sent play back to half-way. Then came Guy's first score; both halves handled; then Stringer who, timing his pass beautifully, sent on; Lacey, Digby and Stokes completed the movement, Stokes scoring. Hind's excellent kick was not successful. At the other end Stringer stopped a heavy rush after Harkness had pluckily gone down to the ball. Stringer was hurt, and during his temporary rest O'Callaghan scored. His pace was too much for the remaining defenders. No goal resulted. Guy's came again, perfect passing and a clever swerve and Digby rounded the posts; the defence was waiting for Stokes to receive. Glendining goaled, and the game ended as stated above. Team:—

GUY'S.—A. H. Harkness (back); L. B. Stringer, G. E. W. Lacey, W. E. S. Digby, A. L. Stokes (three-quarters); J. G. Saner, C. H. Medlock (halves); G. R. Hind, C. S. L. Roberts, W. S. Stranack, T. D. Stout, A. W. A. Davies, V. Glendining, O. Parry Jones, R. Liebson (forwards).

REMARKS.—A very fine win, achieved by all-round good play and the magnificent tactics adopted by Stringer. A weaker player opposite O'Callaghan and it would have been, in the words of an extremely noisy spectator, a case of " 'Eaven 'elp the 'orspital! " The cup games are very near, and it is most encouraging to note the keenness of all who took part in Saturday's game. Harkness will be quite an efficient last line. Stringer's merit is acknowledged. Digby, after a severe illness, is to be congratulated on his sporting spirit in again donning the jersey. His display was far better than one expected after such a bad time. Lacey will improve. His defence was great, but he must not, even momentarily, hesitate before delivering the final pass. His wing man must be served at top speed, else over-running will ensue. Stokes must regain his confidence, which should not be difficult considering his natural ability. Saner and Medlock played well. Medlock does an enormous amount of work. It is scarcely fair to criticise so fine a pack. Hind's presence in the heavy work and his wholehearted charges at the bunched opposition constantly turned defence into attack. Roberts was always in the picture. Stranack, Parry Jones and Glendining were more than useful ; Stout shines in the tight. Davies played well, except that he kicks a bit too hard, a failing in which some of the other forwards are just as bad. Liebson is rather on the light side, but he was frequently prominent.

GUY'S v. OXFORD UNIVERSITY.

This match was played at Oxford on Tuesday, January 24, and resulted disastrously for the Hospital, the University running out winners by 2 goals and 7 tries to 1 goal; 31 points to 5. It was a weak team that the Hospital fielded, and again they found the University in top form. Geen was away from the Varsity back division, otherwise the Dark Blues had their strongest side out behind the scrum. It was a delightful afternoon, all in favour of a fast game, and eminently suited to the brilliant tactics of the Varsity. They were not long in settling down. Cheeseman so very much overshadowed Davis that Knott was always receiving, and from a wide pass of his to Steyn, the first score ensued. Again Steyn crossed the line, but this time Buchanan cut out the opening. Cheeseman failed with both kicks, but the attempts were good. The Hospital men, led by Stranack, were stopped by Sampson, play being sent back to midway through a long and useful punt by Poulton. A good run by the latter was just stopped in time, but Hands soon added a third try, and Gilmour a fourth. Buchanan goaled the former with a brilliant kick. Lacey was next prominent in checking an Oxford advance and breaking away to the centre, Stokes adding to the ground gained by a fine punt. But Oxford were soon back again, Ritchie getting across with a fifth try, which Buchanan failed to convert. Ends were changed with Oxford leading by 17 points.

Resuming, Guy's pressed, but their passing was slow and at the standstill. Oxford were soon on the move again, a strong forward rush ending in Brown (the International) touching for a sixth try. Horsley was now rendered *hors de combat,* and was carried off. Stringer, whose chances had been extremely limited, ran well, but Lacey, who received his pass, was marked at once. Again Oxford revived, Pocock being the scorer, Allen crossing with another try; and interpassing between Steyn and Buchanan saw the last-named add yet another. Hands converted this last try. With the end approaching, Parry Jones registered a score for the Hospital, Glendining kicking a goal. The final score read as above. Team:—

GUY'S.—A. H. Harkness (back); L. B. Stringer, E. C. Nicholls, G. E. W. Lacey, A. L. Stokes, (three-quarters); J. G. Saner, C. H. Medlock (halves); W. S. Stranack, O. Parry Jones, A. W. A. Davies, T. D. Stout, V. Glendining, R. Stout, L. Horsley, R. Liebson (forwards).

GUY'S v. LONDON SCOTTISH.

At Richmond, on Saturday, January 28th, Guy's were heavily beaten by 31 points to 8, made up by 5 goals and 2 tries. Guy's men, past and present, reading this somewhat astounding result will naturally at once want to know the reason for this downfall. The answer is, the Hospital pack were " off colour,"

and that the London Scottish pack and backs were very much "on." The Scotsmen were strengthened by Buchanan, of Oxford, being included, and also by Lindsay and Monro's appearance at half back. Hind was out of the Hospital pack.

Robertson was the first to open the scoring for the Scottish, crossing wide out. No goal resulted. Only a few minutes had elapsed before the home side looked certain to score again, but Harkness brought off a good save. Constant pressure was kept up on the Guy's line, and only at odd intervals could Guy's get away at all. Before half-time Lindsay scored again for the London Scottish, with Buchanan kicking a goal. Ends were changed with Guy's 8 points down.

With only this small deficit there was no reason why the Hospital should not save the game, but not until the last quarter of an hour or so did they find their proper game. In the meantime the Scotsmen gained 5 further tries through Buchanan, Kinross, Robertson. Patterson and Simson, 4 of which were converted. It should, in ordinary fairness, be stated that previous to this deluge Saner managed to clear the field, but evil fortune made him for some reason send a forward pass on to Stringer, and so an excellent chance was lost. During the last quarter of an hour, Stringer, running well, got over and touched for a good try, Roberts adding another one. Stokes converted once with a very fine kick indeed. The game ended:—

London Scottish, 5 goals 2 tries ... 31 points.
Guy's Hospital, 1 goal 1 try... ... 8 points.

GUY'S.—A. H. Harkness (back); L. B. Stringer, W. E. S. Digby, G. E. W. Lacey, A. L. Stokes (three-quarters); J. G. Saner, C. H. Medlock (halves); C. S. L. Roberts, W. S. Stranack, R. S. Kennedy, T. D. Stout, V. Glendining, O. Parry Jones, L. Horsley, R. Liebson (forwards).

REMARKS.—The game was very disappointing, but there is no occasion to let it weigh too heavily. It was a real beating, sad, but true, and after one has let its rather depressing lessons soak in, the best thing to do is to leave it and forget it. The work in hand is to keep possession of the "Cup." Every man who stands a chance of being called upon to defend it must train, and train hard, keeping himself right up to concert pitch, so that should he be wanted he will be able to give of his very best. Guy's chances are as good as ever, notwithstanding Oxford, United Services, and other little memories. What is wanted is the utmost keenness; the Hospital's reputation then will be not only maintained but enhanced.

Association Football.

GUY'S HOSPITAL v. ALLEYN.

THIRD ROUND—SURREY CUP.

Played at home on Saturday, January 28th, when, after an extremely hard game, lasting all but two hours, the Hospital made their exit from the competition, being beaten by 4 goals to 6.

The ground, which had been carefully rolled, was in splendid condition. Guy's, winning the toss, immediately set a hot pace, and some excellent play on the left wing enabled Beirs to send across two really good passes to Veale, who goaled twice with first time efforts (2—0). Alleyn were anything but depressed, and played like men possessed. Within twenty minutes from the start they were level. Day, who scored the first, looked in a doubtful position, but the second might well have been saved (2—2).

Both sides thoroughly earned their half-time rest, the score being then unaltered, but on resuming, Birks went through in great style, and, beating three opponents, shot a beautiful goal. Guy's were still setting the pace, but eventually fell off, and Alleyn, who had been doing little, took prompt advantage of the respite by getting through twice, thus taking the lead with fifteen minutes to go. The Alleyn goal in this short time had three marvellous escapes, but Powell performed excellently, and kept us out till the last minute arrived, when Neale beat him, a hot shot from Birks coming off the cross-bar.

The game being level, extra time was agreed. Still the Hospital were on top, but their energy proved their undoing, as, no score being registered, another extra time was begun, and Alleyn, whose forwards had done little for some time, did all the work, and, finding the net twice, ran out winners after one of the best games we have seen at Honor Oak Park.

The XI. may take comfort from the fact that they played a really good game against a side who have a reputation for being fast and clever as well as heavy. An impartial observer would certainly say they were unlucky in partially losing Russ through a strain from the start, and in coming within the veriest ace of scoring so often.

Of the forwards, Birks was *facile princeps*, but King did not get enough to do. Bevis was very good till he, too, was hurt. Veale's three goals deserve mention, but neither he nor Bligh were quite at their best. The halves gave a good display, both Camp and Neale being much improved, though Neale does not back up enough. Russ and Keer did many good things; Keer will doubtless do even better when he can give more time to the game, while the former's injury prevented him playing anything like his usual game.

Births.

GOSS.—January 20th, at Elm Lea, London Road, Gloucester, to Dr. and Mrs. Goss, a daughter.

SMART.—January 22nd, at Clifton House, Shelley, nr. Huddersfield, to Dr. and Mrs. H. Douglas Smart, a son.

ED.—E. G. S., pp. A. N. C.

GUY'S HOSPITAL GAZETTE.

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Passim.

WE are asked by the secretaries of the Physical Society to remind members that essays on "Rheumatic Fever in the last Decade," for the Treasurer's Prize, should be sent in by Monday, March 6th. The meeting at which the prize essay will be read is to be held on March 17th, when Mr. Symonds will occupy the chair.

IN a previous "Passim" we pointed out the lack of a Cup for the holders of the Inter-hospital Golf Championship. This want has now been remedied, Dr. Hale White having very kindly presented the Inter-hospital Golfing Society with one. This championship has been in existence for two years, and was won in 1909 by St. Thomas's, and in 1910 by Guy's, who are therefore the holders. The Cup is at present in the Smoking-room, and we hope will remain there after the next competition, which takes place during the spring.

IN another column will be found a description of an operation for empyema from the *London Magazine: or Gentleman's Monthly Intelligencer* for 1754. At that time, apparently, it was thought no breach of professional etiquette in a surgeon to explain his work in a lay magazine; now, such a thing lays him open to the terrible charge of playing to the gallery. We are too timid in this country of giving the ordinary lay press the benefit of our science. While it is true that no good purpose is served by a description of some sensational operation, or the latest preparation of arsenic, in the half-penny daily paper, there yet remains a very wide field for the education of public opinion in some medical matters. Ignorance and superstition are more rife, and work more harm, in connection with disease than with any other matter. The quack and the patent medicine man, who now take upon themselves the education of the public in this department, flourish exceedingly. We should like to see in our English magazines informative articles, not too technical, on the advances in science, such as those which form a striking feature in American magazines of the better sort.

SIX Hunterian Lectures on "The Fossil Remains of Man, and their bearing on the Origin of Modern British Types," are to be delivered in the theatre of the Royal College of Surgeons, in Lincoln's Inn Fields, by Professor Arthur Keith, M.D., F.R.C.S. (Conservator of the Museum). These lectures are designed to serve as an introduction to the study of the Anthropological Collection in the Museum of the College, and will be illustrated by means of the epidiascope. The opening lecture is to be given on Monday, February 20th, at 5 o'clock p.m.

WE are asked to announce that the next meeting of the Guy's Hospital Christian Union will be held on Thursday, February 23rd, in the Medical School Committee Room, at 5 p.m. Mr. J. A. Martin will read a paper on "The Place of Medical Missions in the Evangelization

of the World." After the reading of the paper the meeting will be thrown open for a free discussion of the subject.

Having erred in our own spelling of foreign words on various occasions, and had our leg pulled in consequence, we have less compunction in criticising an Italian circular which has been sent to us It is issued in connection with the International Exhibition of Social Hygienics which is to be held in Rome during this year. The excellence of the objects of this undertaking need not deter us from feeling some amusement at the way they are described in the circular before us. The exhibition is "for the struggle angaiust tubercolosis and other popular (*sic*) diseases." It is possible that the very charming nurse who just now is greeting us from every poster-hoarding with the request "Will you help?" has done something to popularise the disease. The opening sentences of the circular are distinctly promising:—

> "On the occasion in which Rome is preparing to commemorate the prophetic date that consecrated it the Capital of Italy, assembleing artists and men of science of every kind, convocated in the Eternal City to inspire themselves from its memories, the impulse to ever new conquists and to bring into it the contributions and the result of the work of the genius of the whole world."

But what of the following notice to intending exhibitors:—"If the Exhibitors wish for a space modifying the general to photography the price will be raised by common accord." We don't wonder!

Facial Paralysis as a Complication of Acute Otitis Media.

A case of facial paralysis occurring as a complication of acute otitis media, which was seen lately at Mr. Mollison's Aural Out-patients, is worth recording, as it is specially interesting from a general surgical point of view.

The case was that of a woman, J. W., aged 41, who came up for pain in the left ear of twenty-four days' duration. She gave a history of otorrhœa which commenced six days before; she was deaf, complained of noises in the ear, had some pain over the left mastoid process, and had noticed her face to be "peculiar" for four days. There had been no otorrhœa previous to the present discharge.

On examination she had obvious facial paralysis on the left side of the infranuclear type; the membrana tympani was reddened, and there was a small perforation in it, while the meatus itself was red and swollen. There was some tenderness on pressure over the mastoid process. Rinne's test was negative on the left side, positive on the right.

On electrical testing the muscles were found to be only partly paralysed. Two days later an incision was made in the membrane, as the existing perforation was too small to secure efficient drainage.

Some five days later the pain was much relieved and the membrane was no longer red, the deafness had gone, but slight paralysis still remained.

Rinne's test now gave a positive result on the left side, showing the return of the conducting apparatus to a normal condition.

Acute otitis media complicated by facial paralysis was diagnosed. When seen, about a month after the commencement of the illness, the patient was nearly well, the remaining paralysis being very slight.

The facial paralysis, usually associated with middle ear disease, is due to a chronic suppurative process in the middle ear causing necrosis, and thus affecting the seventh nerve as it lies in relation to the tympanum—thus it is often seen in tuberculous otitis and in cases due to scarlet fever, but any chronic suppurative process can be definitely put out in this case. The explanation must rather be sought in some anatomical peculiarity. The facial nerve lies in a bony canal—the Fallopian Aqueduct—situated, in part of its course through the temporal bone, along the inner wall of the tympanum close to the roof. In a small percentage of temporal bones this part of the Fallopian Aqueduct exhibits small deficiencies in its bony wall, thus allowing the facial nerve to lie free, as it were, in the tympanum. The most frequent position for these deficiencies is just above the fenestra ovalis. When a patient with such a deficiency in the facial canal becomes the subject of an otitis media, the facial nerve is affected by the increased pressure in the tympanum, and, perhaps, by an inflammatory change, and paresis of the muscles supplied results.

The above case is probably an example, since the paralysis diminished so quickly after the relief of tension in the tympanum.

Facial paralysis with acute otitis has not often been described; Politzer mentions the occurrence of facial paresis in the course of acute otitis media; Barr[1] notes its occasional occurrence in non-suppurative otitis media, but gives no suggestion as to how the paralysis is produced; Davis[2] showed a case of facial paralysis following a mild catarrh of the middle ear without perforation, at the Royal Society of Medicine, and suggested that the condition was probably due to some abnormality or deficiency in the canal of the facial nerve, as described above.

I am much indebted to Mr. Mollison for permission to report the case, and for assistance in preparing these notes.

W. T. CHANING-PEARCE.

References.

1. Diseases of the Ear. Thomas & J. S. Barr, p. 305.
2. Otological Section of Proceedings of Royal Society of Medicine, 1910, p. 60.

Notes on Clinical Chemistry.

By J. H. RYFFEL.

These notes will be confined to those estimations and tests which can be performed in reasonable time without elaborate apparatus or exceptional skill, which are of recognised clinical value, and yet are not sufficiently discussed in the books on clinical methods such as that of Hutchison and Rainy. Those methods which are referred to without description will be found in the books.

Examination of Urine.

Sugar.—The value of the tests for dextrose in urine has been so generally discussed that but few remarks are necessary here.

Fehling's solution will generally keep for months without developing a reducing reaction, but, where there is any doubt, a blank test must be made in which the Fehling's solution alone is treated in the same way as that to which urine is added. The solution must be definitely boiled after the addition of the urine. If the reduction obtained is a doubtful one, the best plan is that recommended by Pavy: to give a test meal rich in carbohydrate and test the urine obtained for two or three hours after the meal.

Nylander's bismuth test is useful, but is not so sensitive as Fehling's.

In applying the fermentation test to distinguish dextrose from lactose and glycuronic acid, neither of which ferments in twenty-four hours, it is safest to employ two ureometer tubes, one containing yeast and urine, the other yeast and a solution of dextrose or cane sugar, so as to make sure that the yeast employed is active.

Glycuronic acid can further be distinguished from dextrose by its lævorotation in urine, and by the fact that in Fehling's test, although the blue colour is replaced by a brown, there is no formation of a definite characteristic precipitate. Unless, however, the presence of glycuronic acid is due to a drug, its distinction from glucose is not of much importance, as the two substances often occur together in the milder forms of glycosuria.

For the estimation of sugar Pavy's method is still the most reliable of the more rapid methods. Inaccurate results are merely due to carelessness. The following points will be found useful. The apparatus should consist of a tap burette fitted directly to a flask by means of a rubber cork, which carries a short bent tube as an exit for steam and ammonia. The liquid in the flask must be definitely boiling before any sugar solution is run in, and must continue to boil throughout the titration. Towards the end of the titration the sugar solution must be run in at so slow a rate that the final disappearance of the blue colour in the flask is quite gradual, otherwise too much sugar will be added. The titration must not be so slow that cuprous oxide is deposited. The volume of diluted urine required should not be less than 1·5 c.c. or greater than 4 c.c. for 10 c.c. Pavy.

If Gerrard's cyano-cupric method is employed, the liquid must be placed in a flask, which is kept boiling throughout the titration, as it absorbs oxygen quite readily when hot. The standard value for 10 c.c. Fehling's solution by this method is not 0·05 grm. glucose, as usually given, but about 0·04 grm. Thus a solution of pure glucose was made up containing 4·20 per cent. glucose. By the polarimeter this was estimated to contain 4·22 per cent. glucose, by Pavy's method 4·10 per cent., but by Gerrard's method, assuming 10 c.c. Fehling = 0·05 grm glucose, 5·79 per cent. was found.

The acetone bodies.—The most sensitive and distinctive test for acetone that can be applied directly to urine is Rothera's modification of the sodium nitroprusside test. About 1 c.c. of sodium nitroprusside solution, which must not be so old as to have lost its red colour, is added to about 5 c.c. urine in a test-tube. Ammonia is then added till the liquid is definitely alkaline, and finally solid ammonium sulphate to saturation. A colour like that of permanganate develops, which reaches a maximum in fifteen minutes and then fades. The test shows the presence of one part of acetone in 20,000. It gives a negative result with normal urine, but shows the slightest degree of acetonuria.

Legal's test is less sensitive, but is useful to show the degree of acetonuria. On the addition of nitroprusside and caustic soda to the urine a red colour is produced with normal urine. On acidifying with concentrated acetic acid this becomes yellow when acetone is absent, but when acetone is present the red is changed to a reddish purple. If much acetone be present the colour with acetic acid is more intense than that with caustic soda. If a definite reaction is obtained with this test, the urine will generally give a reddish brown colour on the addition of more ferric chloride solution than is required to precipitate the phosphates present, thus showing the presence of diacetic acid, but no reaction for diacetic acid is ever obtained in the absence of acetone. This point is of

some value, as it is often very difficult to distinguish the purple colour due to salicylate in the urine from that due to diacetic acid, and the administration of aspirin is at present very common. It is almost impossible to estimate the intensity of the diacetic reaction when both diacetic and salicylic acids are present.

By the combination of the above three tests it is possible to construct a scale of degrees of acetonuria thus: (I) acetone present, (II) a good reaction for acetone, faint diacetic, (III) the various degrees of diacetic reaction up to the almost black colour usual in diabetic coma.

There is no simple effective test for oxybutyric acid, but this does not much matter, as it is not known to occur except in acetonuria. The quantity of oxybutyric acid present is nearly always greater than that of total acetone (acetone and diacetic acid together). Statements that the acetone per diem has to reach a certain limiting value before oxybutyric acid appears, are almost certainly only a record of the imperfection of the older methods of identifying and estimating oxybutyric acid.

Acetonuria corresponds to increased metabolism of fat, and is liable to occur normally in man if the energy of the diet be inadequate, or if the diet contain less than 70 grm. of carbohydrate per diem, but individual variations are considerable. Acetonuria is therefore to be expected when a patient begins strict carbohydrate free diet. It is only when the diacetic acid reaction is fairly intense that there is any appreciable acidosis associated with a rise in the excretion of ammonia and the risk of coma. As a measure of acidosis, estimations of ammonia (see later) are much more valuable than those of acetone. Another cause of acetonuria is necrosis, or fatty degeneration, of the liver. It therefore occurs in phosphorus and chloroform poisoning, acute yellow atrophy, and some acute infections. A third possible cause is shortage of oxygen, which may account for its occurrence in carbon monoxide poisoning and some cases of pneumonia.

Estimation of acidity and ammonia.—In a flask of suitable size are placed successively about 15 grm. coarsely powdered potassium oxalate (neutral to phenol phthalein), 25 c.c. of the urine measured with a pipette, about an equal volume of distilled water, and finally ten drops of a one per cent. alcoholic solution of phenol phthalein. The contents of the flask are well mixed and titrated with decinormal ($\frac{N}{10}$) caustic soda until a faint pink tint appears. The amount of caustic soda used measures the acidity of the urine. For the estimation of ammonia 5 c.c. formalin are diluted with a roughly equal volume of water. A few drops of phenol phthalein, are added and then $\frac{N}{10}$ caustic soda till a slight pink colour is obtained. The resulting neutralised formalin is added to the product of the first titration of the urine, which is then again titrated with $\frac{N}{10}$ caustic soda until the pink tint reappears. The second titration measures the ammonia.

The acidity of the urine is expressed as the number of c.c. of $\frac{N}{10}$ caustic soda required to neutralise the twenty-four hours volume of urine, or that for one hour.

From the titration for ammonia the result is calculated thus:—

$$\text{Ammonia nitrogen in grm. per 100 c.c urine} = \frac{1.4 \times a \times 4}{1000}$$

where a is the number of c.c. of $\frac{N}{10}$ soda required in the titration when 25 c.c. urine were used. The potassium oxalate is added to precipitate the calcium of the urine, which by the formation of calcium phosphate interferes with the end point of the titration.

In the titration for ammonia the formalin added combines with the ammonia of the urine to form the neutral urotropine, thus liberating the acids previously neutralised by the ammonia. The titration of the acid thus liberated measures the ammonia.

The result by this method is always slightly higher than that obtained by the standard methods of Shaffer and Folin, as amino acids react in the same way as ammonia. The quantity of these substances present is usually negligible. If, however, protein be present in considerable quantity, it must be removed by rapid heat coagulation, or another method employed.

Estimation of total nitrogen and discussion of results.—No conclusion can be drawn from the estimation of the ammonia unless the total nitrogen of the urine is also determined. The standard method for this estimation is that of Kjeldahl. This method presents no real difficulty if a condenser be employed in the distillation stage. Moreover, the time required is not great, if several estimations can be done at once. Its use, however, for clinical purposes is not really necessary, as the total nitrogen can be approximately calculated from the result of the hypobromite method of nominally estimating urea in all but very exceptional cases.

For the estimation of hypobromite nitrogen the ureometer of Doremus is unnecessarily inaccurate. The method of Dupré is better, but it will be found both simpler and more accurate to substitute, for the burette and cylinder, two

burettes on a stand connected by a rubber tube and nearly half filled with water. The top of one of these is connected by a tube to the mixing bottle, while the other is open to the air. In taking both the zero and the reading after the evolution of nitrogen, the open burette is removed from the stand, placed against the measuring burette and moved up or down till the water level is the same in both burettes, when the reading is taken. If the volume of gas from five c.c. urine is too great, two c.c. are employed. As mixing the hypobromite and urine always generates some heat, it is desirable to keep the mixing bottle in a bath of water at the same temperature as that of the surrounding air, and to take the reading when it has become steady. Protein, if present, must be removed by heating the acid urine and filtering without dilution.

The nitrogen obtained from urea amounts to 92 per cent. of the theoretical, that from ammonia to 97 per cent., while that from the other urinary constituents is nearly negligible, so that the hypobromite method practically amounts to an estimation of urea plus ammonia. Assuming the yield to be 92 per cent., 78·4 c.c. of gas measured at 15° C., and 760 mm. over water represent 0·1 grm. nitrogen in the urine. At 10° C. the corresponding volume is 76·6 c.c., at 20° C., 80·2 c.c. When the estimation is done at a temperature near 15° C. the amount of nftrogen is calculated from the formula:

$$\text{Wt. of nitrogen in grm. per 100 c.c. urine} = \frac{a \times 10}{78{\cdot}4 \times b}$$

Where a = volume of gas in c.c.
b = volume of urine employed in c.c.

The following table shows the results obtained by Folin from the analysis of the urines of six men on a standard meat-free diet containing 120 grm. protein per diem, his results with lower quantities of nitrogen, and the results of Cathcart's observations on a starving man.

DIET.	Total Nitrogen in grm. per diem.	Percentage of total Nitrogen as		Acidity of urine in c.c. $\frac{N}{10}$ NaOH per diem.
		Ammonia.	Urea + Ammonia.	
Standard diet—				
Average	16	4·3	91·8	617
Minimum average	14·8	3·3	90·7	554
Maximum average	18·2	5·0	92·6	669
Low Nitrogen diet (largely vegetable)	4·2	11·7	73·7	243
Starch & cream diet	3·8	13·6	74·8	220
Potato & cream diet	3·7	4·6	73·6	107
Mixed diet ...	10–14	3·5–5	83·5–90	
Starvation–4th day	13·72	9·51	91·3	604
,, 10th day	8·38	14	85·8	280

These results show that the urea and ammonia nitrogen amount together to about 90 per cent. of the total nitrogen in the normal and in starvation, but only to 75 per cent. on a diet containing minimum nitrogen, which is practically never given to patients, so that *a fair estimate of the total nitrogen may be obtained by multiplying the result of the hypobromite estimation by 1.1.* This point is borne out by the following estimations:—

Case.	Volume of Urine in 24 hours in cc.	Nitrogen in grm. per diem.	Percentage of Nitrogen as		Acidity in cc. $\frac{N}{10}$ NaOH per diem.
			Ammonia.	Hypobromite Nitrogen	
Normal ...	1620	12·77	5·37	93	309
Diabetes (1) (*a*)	7730 (sugar 5·46 %)	33·7	17 7	90·8	1196
,, (1) (*b*)	5964 (sugar 5·76 %)	27·8	13·2	91·8	453
Gastritis (*a*)	1560	11·15	5·03	89·8	253
,, (*b*)	1820	14·6	3·9	87·9	298
Aneurysm (*a*)	300	4·74	9·65	88·0	43·4
,, (*b*)	365	5·99	9·57	87·5	90
Diabetes (2)	2102 (sugar 5·81 %)	24·5	5·53	96·1	743

The high result for the hypobromite nitrogen in the second case of diabetes is to be accounted for by the fact that urea yields more than 92 per cent. of its nitrogen in the presence of sugar. Apparently, when the ammonia is high, as in diabetes (1), the nitrogen, which does not react with hypobromite, such as that of creatinine, also rises, so that here also the hypobromite nitrogen forms about 90 per cent. of the total.

From the results of the determinations of ammonia and total nitrogen, performed either on a sample of urine or on the mixed urine of twenty-four hours, the percentage of the nitrogen, which is present in the urine as ammonia, can be calculated. This quantity is of value as a measure of acidosis. It lies normally between 3 and 5 per cent., but rises to 14 per cent. in starvation and on a low nitrogen diet. In the former the high ammonia is partly due to acidosis. In the latter the high ammonia is only relative, as the nitrogen is very low, but even here a diet rich in mineral bases, such as the potato diet, lowers the ammonia percentage considerably.

As the individual variations are considerable, it is not possible to fix any exact figure for the percentage of total nitrogen as ammonia, which indicates a dangerous degree of acidosis, in diabetes or other pathological conditions. Where possible, the patient should be compared with

himself, but on the whole it may be said that 15 per cent. is undesirably high, when the daily nitrogenous excretion is not very low.

As the normal acidity varies from 600 c.c. to 1000 c.c. per diem according to the diet, the determination of the acidity of the urine is not of much value by itself, except where the attempt is being made to reduce acute acidosis by the administration of sodium bicarbonate. The drug can then be pushed until the urine no longer reacts acid to litmus, and the acidity per hour to phenol phthalein is quite low. The effect of sodium bicarbonate on the percentage of ammonia nitrogen takes place slowly, but is ultimately quite marked. This point is illustrated by the first case of diabetes given in the table. Sodium bicarbonate was being given by the mouth. Observations *a* and *b* are seven days apart.

The estimation of acidity and ammonia is also of value in cystitis. Here the acidity may even be negative, while the ammonia is correspondingly raised owing to decomposition of urea to ammonia.

Estimation of chloride.—The chromate method of estimating chloride being exceedingly unreliable when applied to urine, that of Volhard must be used. The urine is freed from protein, if present, by heat coagulation and filtering through a dry filter. 10 c.c. urine are then accurately measured at atmospheric temperature into a 100 c.c. graduated flask. About 5 c.c. nitric acid and accurately 30 c.c. $\frac{N}{10}$ silver nitrate are added. The volume of the mixture is made up to 100 c.c. with distilled water. The contents of the flask are then thoroughly mixed and filtered through a dry filter into a dry clean beaker. 50 c.c. of the filtrate are measured with a pipette into a white dish. About 20 c.c. 10 per cent. ferric alum are added, and $\frac{N}{10}$ potassium sulphocyanide run in from a burette until a slight permanent red colour is obtained. The excess of silver nitrate used, beyond that required to precipitate the chloride originally present, is thus determined, as potassium sulphocyanide precipitates silver in acid solution completely before it reacts with ferric salts giving the characteristic deep red colour.

The calculation is as follows :—

$$\text{Grm. Cl. in 10 c.c. urine} = \frac{3.65\ (30 - \frac{100}{50}a)}{1000}$$

where a is the volume in c.c. of $\frac{N}{10}$ sulphocyanide required in the titration.

The output of Cl. in 24 hours is then calculated from the volume of the 24 hours' urine.

Retention of chloride—kidney inefficiency—retention of nitrogen.—In pneumonia there may be only a trace of chloride in the urine until the crisis is reached. This point may be easily demonstrated as follows : A specimen of urine is daily diluted to a specific gravity of say 1015. 10 c.c. are then measured into a test tube, and a few drops of strong nitric acid and a slight excess of three per cent. silver nitrate are added. With very little chloride present the urine becomes milky, but with a more normal amount a definite curdy precipitate forms. On keeping the series of test tubes the changes in the chloride present are sufficiently striking.

The normal urinary output of chloride is usually given as about 10 grm. Cl. per diem, but it may be very much less than this according to the diet. Thus on a starch and cream diet Folin obtained figures as low as 2 grm. Cl. per diem, while in Cathcart's observations on a starving man the chloride output fell continuously, until on the 13th and 14th days it was only 0·2 grm. per diem, with a daily urine volume of 600 c.c.

In investigating the question of chloride retention, due to kidney inefficiency or other cause, it is necessary to take into account the chloride in the food and that lost in the sweat. Normally the chloride of the food is very completely absorbed, and that lost in insensible sweating is negligible. Thus, in Folin's observations, the standard diet contained an average of 6·13 grm. Cl. per diem, while the average figure for the urine was 6·1 grm. per diem. The simplest case for calculation is when the patient is on a milk diet, but unfortunately the chloride of cow's milk varies according to different observers from 0·17 per cent. to 0·1 per cent. Taking the higher figure, an allowance of three pints of milk a day would mean an intake of 2·9 grm. Cl. The following figures represent in each case grammes Cl. in 100 grm. of substance : whole egg without shell, 0·13 ; white bread, usually 0·4 ; oatmeal, 0·09 ; rice, trace ; beef, 0·1 ; human blood, 0·28. 36·5 grm. Cl. correspond to 58·5 grm. NaCl.

Unless pathological retention of nitrogen is very marked, its demonstration is difficult. The nitrogen of the food and that of the fæces must be considered. Milk usually contains about 0·5 per cent. nitrogen. The fæcal nitrogen amounts to roughly 6 per cent. of the nitrogen of the food on a diet which is easily digested, but it is increased in diarrhœa, and reduced in constipation. Acetonuria, where it occurs, is an indication of tissue waste, which will materially alter the result, as in this case an output of nitrogen equal to the intake would indicate retention.

Pupils' Physical Society.

THE eighth meeting of the session was held in the College Smoking Room on Wednesday evening, February 1st. Mr. E. P. Poulton occupied the chair.

A paper on "Tumours of the Parotid Gland" was read by Mr. A. H. Todd. This was illustrated by a large collection of microscopical sections well exhibited, which excited considerable interest. After a discussion on some of the points raised in the paper, a vote of thanks to Mr. Todd for his careful and valuable paper was carried with acclamation.

Bullet Wounds.

THE ninth meeting of the Pupils' Physical Society was held in the Physiological Theatre at 5 p.m. on Monday, February 6th. Mr. L. Bromley occupied the chair. About 150 members were present.

Fleet Surgeon Charles Marsh Beadnell, R.N., gave a lecture on "Modern Bullet Wounds and the Mechanism of their Production." The lecturer began by saying that he would discuss the mechanism of production, rather than the surgery, of bullet wounds, and confine himself to the physical aspects of the question—the laws governing the propulsion, flight, impact, and penetration of the projectile. His data were gathered from the American-Filipino War of 1898, the Boer War of 1899 and 1900, a shooting trip in Uganda, and lastly, some experiments in which certain bullets were fired into media varying in density from steel, on the one hand, to soft animal tissues, on the other.

Attention was first drawn to the rapid ascendancy of the small bore rifle among civilised nations. In order to keep up its weight and energy the bullet had to be lengthened, and the instability of the longer bullet met by increasing its revolutionary speed. These changes had resulted in a lowering of the trajectory, and a consequent increase of the danger zone, so that a man would be hit at any point in a 500 yards range by the modern German Spitz bullet, though he could walk with impunity for 90 per cent. of the same range in the case of the Old Brown Bess.

"High" and "low" explosives were then described, and the harmlessness of our Lyddite shells used at Paardeberg contrasted with the deadly effect which they would have bursting in the rigid compartments of a ship in naval warfare.

To measure how, when and where a bullet did work on striking an object could be well shown by firing it through a series of metal plates. By measuring the apertures and plotting their dimensions on squared paper, a curve could be obtained showing exactly where the work was performed. The actual amount of work done on the living body by a modern high-velocity bullet was very small indeed.

The bullet entering the outer world was a very different thing to what it was before the discharge of the rifle. It possessed kinetic energy, its surface was highly polished and grooved, its temperature was raised, and it was surgically sterile. The Lee-Metford bullet had a spin of 2400 revolutions per second. This ensured stability and a minimum of air resistance. The elongated bullet as it left the muzzle would be toppled over by the tremendous rush of gases past it were it not for its rotation. Indeed, at first it actually wobbled, then steadied like a spinning-top "falling asleep," became rigid, and only oscillated again at the end of a very long flight. A bullet which did not strike "end-on," would produce a much larger wound, and this, in part, gave rise to the mistaken idea that the Boers used explosive bullets. A similar effect would be produced by a bullet which, travelling end-on, struck an oblique surface of the body.

The difficult question of the "drift" or "swerve" of rotating projectiles was next investigated, and allusion made to some of the apparent exceptions to the compressed air-cushion theory. The work done when a projectile impinged upon an object might be manifested on the objective, as when a bullet just passed through the body, or on the projectile, or when a leaden bullet flattened itself out against the hide of a rhinoceros. When troops were in close formation one bullet might penetrate several men. The amount of energy absorbed by the objective depended upon the time of contact and the surface of impact plus the surface of friction, all of which were very small with high-velocity bullets. The higher the velocity the more localised the stresses set up by the projectile, and the more likelihood of hard structures, such as bone, being tunnelled instead of roughly splintered. A bullet thrown by the hand at a window shivered the pane to fragments, but the same bullet fired from a rifle would punch out a clean hole. In the days of low-velocity bullets bruises from contusions were common, but in these days were very rare.

Expansive bullets would be more appropriately termed deformative, there being no expansion, simply an enlargement of one diameter at the expense of another. The significance of the secondary scratches, caused by the bullet striking the ground, was then demonstrated. The rotation of the bullet played an important part in the penetration of bone, and was responsible for the bone dust produced.

Fragments of sheath or nucleus retained in the tissues were a common cause of non-healing of bullet wounds. X-rays easily showed the fragments. Particles of bone might play the part of secondary projectiles, as in the case of a jackal shot by the lecturer, where the wound of exit at the back of the neck was surrounded by some dozen smaller holes caused by splinters of bone which had been forced through the skin. A hollow-nosed bullet probably made such an extraordinarily large wound in virtue of the explosive action of the compressed air in its hollow apex.

In a bullet-wound of the skull the exit wound was shown to be larger than the entry wound owing to the bullet losing in velocity and stability during its passage through the head; the soft parts were also everted. It was noteworthy that a bullet emerging in the temporal region produced much more damage than when it emerged at another point in the skull. Radiating fractures about bullet wounds were also shown.

Some experiments were then described, showing that the effects produced upon the cranial contents by the passage of a bullet were due to hydrodynamic rather than hydraulic action, the bullet sucking in air behind it.

The effects produced on different tissues were finally described. In the skin, the entrance wound was not only smaller than the exit wound, but often actually smaller than the calibre of the projectile. The "flat" and square bones and the ends of the long bones were, as a rule, neatly tunnelled by the bullet, but the brittle and hollow shafts were generally splintered. In gun-shot wounds of the head, brain-matter might protrude from entrance and exit wounds if the patient were not killed outright. This exudation from the entrance wound was due to physiological rather than physical causes. Concussion of the brain was sometimes produced by glancing blows. The tough dura mater arrested much of the debris that otherwise would be forced by the bullet into the substance of the brain, and it had been known to deflect a large bore low-velocity bullet. Dislocation of the eyeball from its socket was another not rare phenomenon met with in bullet perforations of the cranial cavity. The weakness of the temple bones and the tremendous lateral forces that came into play when a bullet perforated the head from before backwards, or *vice versa,* sometimes resulted in greater damage being done, not in the bullet's line of flight, but at right angles to this line.

Hollow organs like the bladder and stomach sustained more damage if fluid were present in any quantity than when empty. A soldier hit in the stomach after a full meal stood a poor chance of recovery. Whenever a bullet entered the abdomen it was obvious how great was the likelihood of more than one coil of gut being perforated. A fact of theoretic interest was that a heart in systole with ventricles empty would suffer less damage if touched by a bullet than when relaxed and distended with fluid. Bullet wounds of the lung, as a rule, healed well.

The lecture was interspersed with reminiscences, and illustrated by over 130 lantern slides depicting various bullet-wounds, scenes on the battlefield, and experiments by the author. A variety of bullets from the field of battle were exhibited, also the new short service-rifle and the automatic Mauser pistol which figured in the Houndsditch shooting affray.

The vote of thanks to the lecturer, proposed by the chairman and seconded by one of the honorary secretaries, was carried with great enthusiasm.

Guy's Hospital.

Statistical Tables.

Financial Statistics for Year ended 31st December, 1910, compared with those of the previous year, ended 31st December, 1909.

I.—IN-PATIENTS.

(*a*) NUMBER OF BEDS AND IN-PATIENTS.

	Numbers in 1909.	Numbers in 1910.
(1) Number of Beds available for use	617	617
(2) Average number of Patients resident daily throughout the year, as counted and recorded daily	525·6	533·5
(3) Number of In-Patients in the Hospital at beginning of year	533	488
(4) Number of In-Patients admitted during year ...	8,400	8,588
(5) Number of In-Patients in the Hospital at the end of the year	488	506
(6) Average number of days each Patient was resident ...	22·7	22·7
Ascertained by dividing the yearly total of daily counts, see (2), by the number of Patients treated to a conclusion, *i.e.*, (3) + (4)—(5).		

II.—OUT-PATIENTS.

(*a*) Numbers.

	Numbers in 1909.	Numbers in 1910.
(1) Total number of new Out-patients	130,499	138,785
(2) Total number of Out-patient attendances	473,137	514,889
(A) Number of Patients on books at the beginning of the year	1,440	1,576
(B) Number of Casualty Patients included in No. 1 above ...	80,975	83,619
(C) Number of Casualty Attendances included in No. 2 above	189,726	192,396
(D) Number of Maternity Patients included in No. 1 above, attended at home	3,555	3,472
(E) Number of Attendances on Maternity Patients included in No. 2 above ...	26,306	25,342

Analysis of Statistical Tables.

IN-PATIENTS.

	Numbers in 1909.	Numbers in 1910.
Number of Admissions—		
Medical	2,739	2,718
Surgical	5,661	5,870
Total	8,400	8,588
Number of Deaths—		
Medical	493	520
Surgical	212	244
Total	705	764
Deaths due to Accident ...	76	86
Brought in dead...	42	28
Analysis of number of In-Patients under treatment—		
Discharged (Relieved)	7,304	7,302
Discharged (Unrelieved) ...	436	504
Died	705	764
Remaining January 1st ...	488	505
Total	8,933	9,076
Average number of Patients in Daily Residence—		
Medical	215·6	261
Surgical	274	372·5
Total	525·6	533·5
Average stay in Hospital (in days)		
Medical Cases	33·4	35·2
Surgical Cases	17·5	16·9
Medical and Surgical Cases ...	22·7	22·7

OUT-PATIENTS.

	Numbers in 1909.	Numbers in 1910.
Patients in Surgery Registers ...	98,131	102,029
General Out-Patients—		
Medical	11,687	12,673
Surgical	6,732	7,532
Special Departments—		
Dental—		
Extractions	6,360	6,138
Conservative Treatment ...	5,475	6,562
Obstetric	1,907	2,106
Ophthalmic (Mr. Eason) ...	3,788	4,391
(Mr. Ormond) ...	2,411	2,798
Aural	1,612	2,372
Skin	3,943	4,528
Throat	2,540	2,894
Orthopædic	509	594
Nervous	—	327
Genito-Urinary	—	84
Maternity Patients	3,555	3,472
Total	148,650	158,500

To arrive at the true number of individual Out-Patients, deduct as under—

Admitted to Wards from Surgery	3,358	3,192
Admitted to Wards from Out-Patients	995	1,305
Transferred from Surgery to Out-Patient Department	13,207	14,605
Transferred from Surgery to Dental Department	591	613
Total	18,151	19,715
Grand Total ..	130,499	138,785

TABLE showing the number of Patients sent to Convalescent Homes.

1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
997	902	871	914	703	813	832	840	811	835

Pass List.

Final Conjoint Examination, Jan., 1911.

MEDICINE, SURGERY AND MIDWIFERY.

*N. Mutch.

SURGERY AND MIDWIFERY.

H. L. James.

MEDICINE ONLY.

J. Bramley Ball.
H. G. B. Blackman.
G. Alan Blake.
H. T. Depree.
*G. R. Hind.
W. E. Levinson.
A. J. McNair.
H. Platts.
E. White.

SURGERY ONLY.

*W. T. Chaning-Pearce.
J. L. Stewart.
H. P. Warner.

MIDWIFERY ONLY.

A. M. Bodkin.
J. H. Campain.
H. H. Davis.
H. Daw.
H. L. S. Griffiths.
E. R. Hart.
G. E. Warner Lacey.
W. M. Langdon.
B. McDermott.
P. J. Monaghan.
G. L. Preston.
C. M. Ryley.
A. S. Seabrooke.
H. F. Stephens.
*A. H. Todd.
W. P. Vicary.

* Denotes completion of examination.

The undermentioned was a successful candidate for a commission in the Royal Army Medical Corps at the recent competition in London, for which thirty-one candidates entered: D. Reynolds, M.B., B.S. Lond., M.R.C.S. Eng., L.R.C.P. Lond.

Tic.

By Dr. HERTZ.

An Address delivered to the Lambeth Division of the British Medical Association.

Gentlemen,—A tic is a psychical affection in which the inhibitory power of the will is so feeble that co-ordinated acts, which are at first executed with a definite purpose, continue to be performed automatically in an exaggerated form after the original purpose has disappeared. The acts can be controlled by the will at the cost of mental discomfort or anguish, which gives place to a feeling of satisfaction after the will has yielded to the irresistible desire for their performance. The tiqueur realises the foolishness of his tic, with the result that a conflict occurs between an illogical desire to perform it and a logical desire to restrain it, the satisfaction which follows being marred by shame at the weakness which has resulted in its performance.

Diagnosis.—Tics have been mistakenly described under the names of habit spasm and habit chorea, for a tic is something more than a habit, and is essentially different from a spasm and from chorea.

A *habit* or *mannerism* has none of the mental attributes of a tic; there is neither the imperious desire which makes its performance irresistible nor the anguish in the struggle to repress it. A mannerism can always be controlled by attention, and is most marked when an individual is abstracted or excited; a tic is only temporarily controllable, and may disappear when the mind is concentrated on other matters.

A *spasm* is the reaction to the irritation of a motor nerve. It is neither dependent on consciousness nor under the control of the will, and may therefore occur during sleep, which is impossible for a tic. The movement consists in the contraction of a single muscle or a group of muscles supplied by a single nerve; it is therefore not co-ordinated nor purposive. This is well seen in facial spasm due to irritation of the seventh nerve; the frontalis and corrugator supercilii muscles contract simultaneously with the orbicularis palpebrarum exactly as if the upper division of the facial nerve were stimulated electrically, although it is difficult or impossible to imitate this voluntarily. Such a combination is impossible in a tic, a facial tic being a co-ordinated action, which begins as a voluntary movement and can always be easily imitated.

Trigeminal neuralgia has received the unfortunate name of *tic douloureux*. The associated facial movement is not a tic at all, but a spasm produced reflexly by the painful irritation of the fifth nerve.

The movements in *chorea* are quite uncontrollable, inco-ordinated and purposeless, instead of temporarily controllable, co-ordinated and purposive. They are grotesque because they are inco-ordinated, and could under no circumstances be appropriate, whereas the movements in tic are grotesque because they are malapropos, the natural end to which they are adapted being no longer present. No two movements in chorea are exactly alike; those in tic are repeated over and over again without variation. They are generally more widespread in chorea, the extent of the movements being without relation to physiological or anatomical grouping, whereas the spread in tic is among functionally related movements. Chorea causes disablement, the patient dropping things and being unable to write. The tiqueur is not disabled; if he has a tic of the arm, he raises his pen when the desire can no longer be resisted, performs his tic, and continues to write. The movements in chorea are physically exhausting; in tic the mental effort to control them is exhausting. A parson, whose tic took the form of winking, could control it during his sermon by a painful effort of will, but the moment he had finished he rushed to the vestry in order to indulge in an orgy of writing, which afforded him an indescribable amount of relief. Finally, chorea is a physical disease due to the rheumatic poison, whilst tic is a psychical disease due to an inherited neuropathic taint.

It is rare for the manifestations of *hysteria* to resemble those of tic. The underlying mental condition is completely distinct, hysterical movements being the result of auto-suggestion and being rapidly curable by suggestion, whereas tics at the best can only be slowly cured by a quite different line of treatment. Hysterical patients perform by choice before an audience, whereas a tiqueur is often ashamed of his weakness, and tries to control his tic when he is observed. A tiqueur in the tube will control his movements so long as he can, but will finally hide behind his paper and gain relief by indulging in his tic. Or, again, he will add an ordinary movement to his tic in order to make a plausible *tout ensemble*; thus he will cover a needless sniff by a handkerchief, or a wink by a movement of the hand to wipe away an imaginary foreign body.

Ætiology.—A tic can only develop in suitable soil, the chief factor in which is the inheritance of a neuropathic taint. A tiqueur is generally excitable, emotional, easily elated and depressed; he is generally above the average in intellect, but is unduly prone to mental and physical fatigue. A tic frequently develops when the general health has been lowered as a result of mental overwork, worry, some acute illness or anæmia.

A tic always originates as a result of some definite stimulus, although this may be so trivial that it cannot be remembered when the tic has reached its fullest development. Most frequently it is the motor response to some irritation; the eye is repeatedly closed owing to the discomfort produced by conjunctivitis, or is screwed up in the effort to see with an uncorrected error of refraction; the head is twisted because of a frayed collar or a stiff neck, or the shoulder raised because of a tight armhole; the trunk is shaken because of some vague general discomfort; the patient sniffs because he has a nasal catarrh, or coughs in order to relieve irritation produced by an attack of laryngitis. All these motor responses to sensory stimuli are at first normal, but they become abnormal when they continue after their cause has disappeared; they may at first be repeated with the object of ascertaining whether the irritation is still present, but, finally, they serve no useful purpose at all; they are then tics.

Occasionally in children a tic may result from irritation. The neurotic child of a tiqueur may in this way develop its parent's tic. Lastly, some tics develop as the result of an idea; the individual feels that it is desirable for him to perform some action, which he continues to perform although the original idea is forgotten or, if still remembered, is acknowledged to be a quite inadequate cause.

Varieties.—I have already mentioned some of the more common *simple tics*. The facial muscles are most often involved; the head may be moved in any direction, but most commonly in the manner characteristic of so-called *spasmodic torticollis*, which is in reality a tic. Tics occur in the limbs, more commonly in the arms, and especially the shoulders, than in the legs.

A simple tic may spread to other muscles, and finally very complicated movements may result. A good example of this is the saltatory tic, a remarkable example of which was described by Trousseau under the name of *chorea saltatina*. A boy, who was otherwise quite well, had attacks which came on at irregular intervals without any warning; he suddenly got up from his chair, "as if pushed by a spring, jumped on a piece of furniture with marvellous suppleness and agility, and then returned to his chair and sat down quietly."

The most curious and complicated tics arise from ideas instead of sensory stimuli. Thus, a patient of Bramwell's was not unnaturally accustomed to kick any piece of orange-peel he saw on the pavement into the road. But soon afterwards he was always possessed with the idea that this was a more dangerous place, as anyone slipping on it might strike his head against the kerbstone, and so he was irresistibly impelled to return and put it in its former position. An Oxford friend of mine, whilst reading for his final schools, used to rush into bed as the hour of midnight approached, as he had become dominated by the absurd idea that he would not get a first unless his light was out before the college clock had ceased striking twelve. Some forgotten idea must be at the bottom of the tic shared by many people with Dr. Johnson, who touched with his stick every lamp-post he passed on his way to Fleet Street, and of the tic which consists in carefully avoiding the lines between the pavement-flags. An exceptionally intelligent boy of fifteen, under my care at Guy's, regulated his whole life by actions of this sort; he realised how stupid they were, but could not restrain himself from performing them. After descending the three steps which led from his house to the street he walked backwards up the bottom one before continuing on his way. On one occasion he restrained his desire to do this, but by the time he had reached his school it had become so overwhelming and so completely occupied his whole attention that he had to return home, walk backwards up the bottom step, and then run back to school, although the delay resulted in a punishment for being late. When playing cricket he lifted the ball he had fielded from the ground, replaced it for a moment, and then threw it in. He always left a fragment of the food which he carried to his mouth, put it back on the side of his plate, and finished his meal by eating the collection of fragments.

The best description of a complicated *mental tic* I have read is that given by George Borrow, in *Lavengro*. A man he had met at an inn in the course of his travels suddenly broke off in the midst of a conversation and walked to the mantelpiece, in front of which he remained motionless for some time; finally he touched the corner of the mantelpiece with his finger, returned to his chair and continued the conversation. A moment later he laid his hand with seeming carelessness upon the table near

one of the glasses, then he touched it with his finger as if inadvertently, glanced furtively at Borrow, withdrew his hand and looked towards the window. Some minutes elapsed, then suddenly his brow contracted, he gave a slight stamp with his foot, and flung his newspaper to the ground, then stooping down he picked it up, first running his forefinger along the floor. In conversation afterwards he told Borrow that it had arisen during a long and serious illness of his mother, during which he found himself impelled to touch various objects, in the desire to prevent her death. Knowing how foolish this was, he often rushed away from the object, but was certain to return, as the impulse to touch was too strong to be resisted, a mysterious dread hanging over him until he had given way. Being heartily ashamed of the practice, he never spoke of it, and was at all times highly solicitous that no one should observe his weakness. I will quote his most remarkable experience in his own words :—

> "I was lying in bed in a kind of uneasy doze, the only kind of rest which my anxiety, on account of my mother, permitted me at this time to take, when all at once I sprang up as if electrified, the mysterious impulse was upon me, and it urged me to go without delay, and climb a stately elm behind the house, and touch the topmost branch; otherwise—you know the rest—the evil chance would prevail. Accustomed for some time as I had been, under this impulse, to perform extravagant actions, I confess to you that the difficulty and peril of such a feat startled me; I reasoned against the feeling, and strove more strenuously than I had ever done before; I even made a solemn vow not to give way to the temptation, but I believe nothing less than chains, and those strong ones, could have restrained me. The demoniac influence, for I can call it nothing else, at length prevailed; it compelled me to rise, to dress myself, to descend the stairs, to unbolt the door, and to go forth; it drove me to the foot of the tree, and it compelled me to climb the trunk; this was a tremendous task, and I only accomplished it after repeated falls and trials. When I had got amongst the branches, I rested for a time, and then set about accomplishing the remainder of the ascent; this for some time was not so difficult, for I was now amongst the branches; as I approached the top, however, the difficulty became greater, and likewise the danger; but I was a light boy, and almost as nimble as a squirrel, and, moreover, the nervous feeling was within me, impelling me upward. It was only by means of a spring, however, that I was enabled to touch the top of the tree; I sprang, touched the top of the tree, and fell a distance of at least twenty feet amongst the branches; had I fallen to the bottom I must have been killed, but I fell into the middle of the tree, and presently found myself astride upon one of the boughs: scratched and bruised all over, I reached the ground and regained my chamber unobserved."

The sniffing and coughing tics already mentioned are examples of what may be called *visceral tics*. Every variety of weird sound may occur either associated with other tics or independently. They may break in upon a conversation or occur at the most inopportune moment. In a patient of Bramwell's the idea of micturition at once gave him an irresistible desire to empty his bladder, no matter where he was or whether it were full or empty. The idea constantly presented itself to his mind both during the daytime and whenever he woke in the night. Many severe cases of flatulence in neurotic individuals are the result of an aërophagy tic, the patient constantly swallowing saliva and air and being quite incapable of controlling the desire to do so for more than a few minutes at a time. The women whose abdomens give forth sounds suggestive of a Maxim gun are almost always tiqueurs of this sort.

In exceptional cases a tic may exist as a purely psychical phenomena without any motor manifestation. "Il y a des tics dans la pensée comme dans le corps" (*Charcot*). The *counting tic* is a good example of this; a patient of Osler's counted a hundred after brushing her teeth, and nine before getting into bed; she knocked three times on a window and then on the door before unlocking it.

A tiqueur may occasionally get into serious difficulties as the result of his tic. Thus genuine kleptomania is, I am convinced, sometimes an example of a tic, and I think that many obsessions and certain forms of moral insanity are similar in origin.

Treatment. — Tic being a mental disease requires mental treatment. No drug is of any use, except in so far as it may improve the patient's general health. The patient should be freed as much as possible from excitement and mental overwork. In early cases the initial source of irritation may occasionally be still present, when it should of course be removed.

Mental treatment of tics consists essentially in re-education. In the first place the patient is instructed to keep himself absolutely still for a period, which progressively increases by a few seconds at a time as improvement occurs. At first he should be seated in a comfortable position, and may even support the affected part; later he should stand without any such help. It is essential to encourage the patient by telling him that he can and must keep still for the speci-

fied time, and that eventually his perseverance will be rewarded by improvement or cure. In children a promise of a reward in case of improvement should be made, and, as Patrick of Chicago has suggested, the control of the tic can often be encouraged by means of a pin so placed as to cause a prick if the movement is made, the satisfaction felt after yielding to the tic being less than the dissatisfaction produced by the prick.

Next, slow, accurate and rhythmical movements must be executed by the muscles affected. At first they should be continued for only two or three minutes, but the duration should be gradually increased to an hour or more. It is useful to allow the periods of immobilisation and movements to alternate, and to repeat the whole three or four times every day. It is advisable that somebody should watch and control the exercises; when this is impossible they should be performed in front of a mirror.

An extension of the immobilisation treatment, which has the object of increasing the general power of inhibition, may be usefully employed. The patient is told to restrain himself from moving when the sole of the foot, the eyelid, and other parts are tickled with a pin.

During the period of re-education, and in those cases in which improvement only occurs up to a certain point, it is necessary to devise some palliative treatment. Patients often discover some trick of restraint; thus the most violent torticollis tic may sometimes be controlled by the touch of a single finger applied to the chin. In other cases the execution of voluntary movements of a less annoying character may temporarily inhibit a tic. Operative interference in torticollis and other tics is unfortunately rarely successful, as the underlying mental condition is unaffected, and the movements, when prevented by neurectomy on one side, pass to the opposite side or to other parts of the body.

Papers by Guy's Men.

R. A. Chisolm, M.A., B.M., M.R.C.P., Greville Research Student. From the Pathological Department, Guy's Hospital: The Respiratory Exchange of Mice Bearing Transplanted Carcinoma.—*The Journal of Pathology and Bacteriology*, Vol. xv., No. 2.

E. W. Goodall, M.D. Lond.: On Some Points Connected with the Serum Treatment of Diphtheria.—*British Medical Journal*, 11th February, 1911.

C. F. L. Leipoldt, F.R.C.S., Anæsthetist to the German Hospital, Dalston: Some Remarks on Pantopon Anæsthesia.—*Lancet*, 11th February, 1911.

Dr. G. Norman Meachen: Affections of the Skin in Childhood. *The Child.*

The Indian Rat Flea at Guy's.

"A.E.B." has kindly sent us the following interesting note on the fauna of the hospital:—

The observations made during the past five years in India, under the direction of the Advisory Committee for Plague Investigation, have shown clearly the paramount importance of rat fleas in the transmission of plague from rats to men. Almost all the rat fleas in India belong to the species *Lœmopsylla cheopis*, which has also been found to be common in seaports as widely separated as Marseilles, Brisbane, San Francisco and Sydney. Hence this animal has acquired considerable notoriety as being the chief agent in the spread of epidemic plague. It is of some interest, therefore, to record the capture last week of two specimens on some wild rats (*Mus decumanus*) which were trapped under the surgical wards. The Hon. Charles Rothschild, who knows all about fleas, has been good enough to confirm the diagnosis. With the exception of a single specimen taken at Plymouth some years since, this species of flea has not been identified in this country before. It may be well to point out that its presence here does not indicate the probability of an outbreak of plague. Other rat fleas, such as *Ceratophyllus fasciatus*, which is common on rats at Guy's and elsewhere in this country, can transmit plague very well if there is plague to transmit. It only happens that *Lœmopsylla cheopis* is the prevalent flea in those hot climates where plague has been most severe in recent years.

Specialities.

"Sphagnol" Preparations.

"Sphagnol" preparations are made from certain products derived from peat. An antiseptic, non-corrosive, non-irritating oil is distilled from this material. It is made into various preparations by the PEAT PRODUCTS, LTD., of 18 and 19, Queenhithe, Upper Thames Street, E.C. The soap is made up in two grades—5 % for ordinary toilet purposes, which lathers well and is pleasant to use, and 15 % for therapeutic purposes, which is recommended in cases of eczema, psoriasis, and other skin affections. There is also an ointment, a "Sphagnoline" cream, and suppositories which are of use in the treatment of hæmorrhoids. All the preparations have an aroma and a dark colour reminiscent of the peat bog. The former is perhaps rather an acquired taste in the case of the shaving soap, but in the other preparations it is by no means unpleasant, and the articles do seem to have a definite value in the treatment of irritative skin lesions.

Gold Inlays and their place in Dentistry.

CLINICAL LECTURE BY J. B. PARFITT.

GENTLEMEN,—I have chosen this subject for two reasons; first, because I believe that cast gold is a most valuable addition to our list of filling materials, enabling us to make satisfactory tooth restorations in some cases that would otherwise be very difficult to treat; and, secondly, because there are a number of little difficulties of technique, easily overcome if one has learned the way, which may lead the beginner to think that it is not possible to make a gold inlay that is worth calling a filling at all.

Before going into questions of technique, it will be well to consider the value of cast gold as a filling material. At the outset it must be pointed out that cast is not merely an inferior substitute for malleted gold, but is really a fresh material altogether, differing from it in almost every particular, excepting for the fact that both happen to be composed of gold; as a matter of fact, its peculiar properties would rather fit it to be a substitute for amalgam than for ordinary cohesive gold.

In discussing the properties of a filling material there are two matters that call for consideration, its value as a filling, and the facility with which it can be manipulated.

The first, and perhaps the most important thing to notice is the presence of the cement lute; a gold inlay may with equal truth be called a cement filling with a facing of gold. Hence it possesses the two great advantages of cement—adhesion to tooth substance and innocuousness to the living tissues therein.

On the other hand, the cement must of necessity come to the surface at the cavity margin. In the case of porcelain inlays, experience has shown that the cement lute lasts very well indeed, probably because the marginal chink soon gets filled up with insoluble debris, which protects the cement from further solution; this also seems to be the case with gold inlays, but we must not be too sure that cement in contact with metal will behave in exactly the same way as if it were enclosed by porcelain and enamel only.

The other important quality is the great strength of cast fillings, enabling us to get good retention with comparatively small holdfasts and also to carry the filling to a thin edge that would certainly break if made of amalgam, so that we need not sacrifice tooth substance in order to get a strong mass of filling, as is the case with amalgam or porcelain.

With regard to facility of manipulation, the great disadvantage is that the cavity must of necessity be prepared without undercuts, and this sometimes entails the sacrifice of tooth substance that we would otherwise gladly have kept. The fact that the shaping is done in wax makes it very easy to get a satisfactory contour, and so ensure the correct shape of the interdental space. Another advantage is that the interstitial surface can be polished before the filling is inserted, and still another the comparatively short time that the cavity need be kept dry for setting in the inlay.

In view of these characters cast gold finds its greatest field of usefulness in interstitial cavities in molars and bicuspids, especially when one or more cusps are involved. It is also very suitable for cavities in the masticating surfaces of these teeth, and for making tips and corners.

The preparation of the cavity is a matter that often requires considerable judgment. There must, of course, be no undercuts to hinder the withdrawal of the wax mould. Like a cavity prepared for a porcelain inlay, the ideal would be to have moderate depth, a flat floor and steep sides meeting it at an angle just greater than a right angle; but the strength and toughness of cast gold permit considerable deviations from this type; the depth of the cavity may be considerably diminished, and the sides may in parts meet the floor at a considerable angle or may even be bevelled; moreover, the holdfast may be diminished in size in comparison with what would be necessary in the case of porcelain, and still be perfectly efficient.

Any sharp corners projecting into the cavity should be well rounded off; if this is not done the corresponding piece of investment is liable to be damaged by the molten gold, with the result that the inlay will not go into place.

The making of the wax mould is a much less simple matter than it appears to be at a table demonstration at a British Dental Association meeting; it is really the most difficult part of the whole process.

In the first place, the wax should be of such a kind that it will break with a clean fracture at the temperature of the mouth; a simple way to test the wax is to chew a piece of it in the mouth; if it can be crushed and re-moulded into one lump by the teeth it is too soft for inlay work; if on the other hand it breaks up into

fragments that cannot be re-united, it is hard enough, although of course it may be too hard and melt at such a high temperature that it cannot be properly moulded in a living tooth at all.

To make the mould, a piece of wax sufficiently large to give a reasonable surplus is heated, preferably in hot water, and quickly pressed into the cavity so as to get the correct impression before the wax has had time to harden; the bulk of the surplus is now cut off with a hot knife or spatula, and the fine carving completed with *sharp* knives and excavators. It is better to trim the margin quite flush without any feather edges; if the wax is of a good hard kind, sandpapering the margins will greatly improve their sharpness.

The most difficult part to finish is the approximal surface, and the best way to get this properly shaped is to apply a strong, well-fitting matrix before packing the wax in; the matrix not only helps to make the shape, but is of great service in the packing of the wax, enabling us to exercise plenty of pressure on it, and so get a sharper impression.

When the mould is quite satisfactory it must be removed without distortion; to do this either the sprue wire, or, better still, a tiny loop of thin gold wire is heated and stuck into a convenient part of the wax, and used as a handle to withdraw it from the cavity.

The mould is now invested. Of the various investment materials on the market, preference should be given to the one that shrinks least in heating, shrinkage being shown by early separation from the ring and the appearance of cracks on the surface. The general opinion is that it is better to proceed with the drying out and casting directly the investment has set rather than to wait till next day or longer. Overheating should be avoided; it is not necessary to get the mould red hot, at any rate for inlays; it is quite sufficient to continue at a comparatively low heat until the mould has ceased to smoke and no odour of wax fumes can be detected coming from it.

We now come to the casting process. The principle is the same in all kinds of apparatus, namely, the forcing of the gold into the mould under pressure, the displaced air finding its way out through the pores of the investment. The pressure is obtained in various ways; in the centrifugal machine it is due to the inertia of the moving mass of molten gold; in the Solbrig apparatus steam is generated in a closed space on the top of the gold; in the vacuum machine a pressure gradient is produced by lowering the pressure below that of the atmosphere underneath the mould; in the various kinds of pressure machines, strictly so called, the same result is arrived at by raising the pressure above that of the atmosphere on the top of the gold. These two last types have the great advantage that the difference of pressure between the top of the mould and the bottom is measurable. This difference in the vacuum machine is limited to something less than 14 lb. to the inch; in the pressure apparatus the difference can be made as great as we please, and, moreover, these machines usually have much larger containers than the others, so that the head of pressure is not so soon exhausted if the joint happens to be defective. All these machines can be made to produce good castings in the hands of those accustomed to use them, but the beginner will find it much easier to get uniform results with one in which the pressure can be definitely fixed at the commencement.

To get uniform results, other things besides the pressure must be considered. It is a good thing always to use the same kind of investment material, and to have the same thickness of it under the mould, so that the imprisoned air shall always encounter the same resistance in getting away through the floor of the mould. Hence in investing the wax it is important to have the part furthest from the sprue at some definite distance below the top of the ring. A quarter of an inch is a convenient thickness to have below the mould in casting, and it is a good plan to keep a small gauge to effect this adjustment. Using the Alston investment, with $\frac{3}{8}$ inch of investment beneath the mould, I find that 20 lb. is enough for small and medium inlays, and 25 lb. for larger ones. Naturally the sprue wire should always be of about the same size.

Before burning the wax out it is well to place the inlay ring in position in the casting machine, and make sure that all the joints are tight and everything in good order.

For making the inlay 24 carat gold is rather easier to work than that of a lower grade. It is not so hard, but does not tarnish with heating, does not require any flux, does not bubble or spit, and is much more easily finished after setting in the cavity.

After removal from the investment, the inlay must be thoroughly cleaned. This is most readily done by soaking it in hydrofluoric acid,

then in strong sulphuric acid, and finally boiling it in water.

It can now be grooved for retention, either with a fret saw or a small wheel or inverted cone bur; if a bur is used, the greatest care must be taken to avoid letting it run on to the edge and so spoil the fit.

Before cementing, it is well to deepen the floor of the cavity, or else to reduce the corresponding parts of the inlay. This will help to ensure the production of a good marginal joint, because it will cause the main part of the pressure to fall on the margin during the fixing of the inlay; it is, moreover, an advantage to have plenty of non-conducting material between the gold and the tooth substance.

While the inlay is being fixed the rubber-dam should be used if possible. Any strong fine-grained cement will do for the lute; it should be mixed fairly thin, and the inlay forced into the cavity with considerable pressure, and held in place until the cement has hardened; the setting may be hastened by the application of gentle heat.

Finally, the gold must be well polished, and when completed it ought to be impossible to tell either by sight or feeling whether it is an inlay or a perfectly condensed ordinary cohesive gold filling.

NOTICES.

Royal College of Surgeons of England.

The following are the dates on which the Examinations will commence in the year 1911.

DIPLOMA OF FELLOW.

First Examination.—Thursdays, May 4, and Nov. 2.

Final Examination.—Thursdays, May 18, and Nov. 23.

Candidates are required to give not less than fourteen clear days' notice in writing of their desire to present themselves for either of these Examinations to the Secretary (Mr. F. G. HALLETT), Examination Hall, Victoria Embankment, London, W.C.

LICENCE IN DENTAL SURGERY.

First and Second Professional Examinations.—Fridays, May 5, and November 3.

Candidates are required to give not less than twenty-one clear days' notice in writing of their desire to present themselves for either of these Examinations to the Secretary (Mr. F. G. HALLETT), Examination Hall, Victoria Embankment, London, W.C.

Guy's Hospital Dental Society.

THE Sixteenth Annual Dinner of this Society was held in the Empire Rooms at the Trocadero Restaurant on Saturday, February 11th. There was a large attendance, which, we understand, came very close to the record attendance of last year, and a very successful dinner was held. The President, Mr. Malleson, occupied the chair. The Treasurer of the hospital, Lord Goschen, honoured the society, and at the same time showed the interest which he takes in all functions connected with the hospital, by attending the dinner. Among the other guests were Dr. Hale White, Mr. Arbuthnot Lane, Mr. H. L. Eason, Mr. W. H. Dolamore (Dean of the Royal Dental Hospital), the Editor of the *British Dental Journal*, and the Editor of the *Dental Record*.

A letter from Mr. Wynne Matheson, expressing regret at his unavoidable absence, was read by the Chairman.

There were no formal speeches, but Lord Goschen briefly replied to the toast of his health, proposed by the chairman, and referred to himself as a first year's man among a number of senior men. We can only hope that he will become a "chronic." Mr. Hopson proposed the health of the chairman, and Mr. Malleson that of the secretary, and these toasts, as well as that of "Guy's Hospital and Schools," were received with acclamation.

During the evening there was a capital entertainment. Mr. Sidney Gandy's ventriloquism delighted everybody; Mr. Walter Churcher is an old favourite on these occasions, and the audience demanded more than one encore. Mr. W. S. Lakeman sang, and Mr. P. A. Sarjeant sang a comic song. Mr. W. S. Dawson recited cleverly the "Ballad of the Jubilee Cup" and "Jack and Jill" in the style of Poe, Tennyson, Kipling, etc. Mr. Russell Rogers acted as accompanist.

The dinner was a most successful one, and it is very gratifying to hear that old members of the Society came from all parts of the country, some from long distances, in order to be present.

Change of Address.

F. L. Aubrey, L.D.S., to 8, Highbury Place, N.

H. Blatherwick, from The Laurels, Dulwich, to 44, Walton Street, Pont Street, S.W.

Cecil E. Carpmael, M.B., B.S., from 125, Half Moon Lane, Herne Hill, to 4, Woodlawn, Dulwich Village, S.E.

S. W. Ingram, L.D.S. Eng., from Guy's Hospital to Norfolk Villa, High Street, Broadstairs.

H. Stanley Jones, M.B. Lond., from 65, Grove Vale, East Dulwich, to Highlands, Howard Road, Richmond Park, Bournemouth.

From the Past.

(*The London Magazine, or Gentleman's Monthly Intelligencer* for July, 1754.)

I.

THE CASE OF OPERATION OF THE EMPYEMA, SUCCESSFULLY PERFORMED BY MR. JOSEPH WARNER, SURGEON OF GUY'S HOSPITAL AND F.R.S.

JOHN COLLIER, aged seventeen years, was admitted into Guy's Hospital the 10th of May, 1753, on account of a complaint in his chest, which he had laboured under for three or four weeks. His symptoms were a continual pain in his left side, an inability of lying on that side, or sitting upright, without greatly increasing his complaints; and a difficulty in breathing. His pulse was quick and low; he had a short cough, was a good deal emaciated, and appeared sallow in his complexion.

Upon examination I perceived a small tumor situated on the anterior part of the thorax obliquely, on the left side of the extremity of the sternum, without the least discoloration of the integuments. On pressing upon the tumor his pain and difficulty of breathing were increas'd, and there appeared something like a fluxation under my fingers. He had never any rigor, which is a symptom generally attending the formation of matter; but from experience I have found that the want thereof is no proof of the contrary. From the foregoing circumstances and symptoms, I made no doubt of the propriety of the operation which I perform'd in the following manner.

The patient being properly situated and secured, I began with making an incision of about two inches long thro' the integuments, and tendinous expansion of the oblique muscles of the abdomen, upon the most prominent part of the tumor: Then I proceeded to make a second incision, of an equal length with the former, transversely through the upper part of the rectus muscle, (which had a perfect healthy appearance) directing my knife forwards, betwixt the cartilaginous portions of the seventh and eighth ribs, into the cavity of the thorax, upon which a thick clotted matter to the quantity of twenty three ounces and upwards, was discharged. I introduced the fore finger of my right hand into the cavity, with which I plainly felt the lungs quite loose, and free from adhesion; the mediastinum, and superior part of the diaphragm, which last had been press'd somewhat lower than its natural situation, by the weight of the incumbent matter. From whence it undoubtedly appear'd, that this great quantity of matter was contained in the cavity of the thorax.

After the whole of the matter was discharged, I introduced a linnen tent, properly secured, into the cavity; which was continued to be introduced every day for about three weeks; now and then, as occasion required, making use of the prepared sponge-tent.

The discharge of matter was considerable for the first week, when it began to decrease gradually, till, at the end of three weeks, there was no discharge at all.

From this time superficial applications only were made use of; and at the end of five weeks he was perfectly well, and has recover'd his former plumpness and healthy appearance.

II.

A RECEIPT FOR CURING CANCERS: MADE PUBLIC IN PURSUANCE OF A RESOLUTION OF THE GENERAL ASSEMBLY OF THE PROVINCE OF VIRGINIA, AFTER HAVING APPOINTED A COMMITTEE TO MAKE TRIAL OF ITS EFFECTS, AND RECEIVING THE REPORT OF ITS SUCCESS.

The Powder.—Take a speck of garden sorrel, and better than half as much celandine, beat them in a mortar, and press the juice through a fine cloth into a pewter bason (*sic*). Take a large handful of the inner bark of perlimon from the south side of the tree, beat it as fine as can be, pour a little spring water to it, and let it stand an hour, then squeeze it as tight as can be through an open cloth into the other juice in the bason. Heat an iron pestle very hot, and with it run four ounces of allum (sic) to the juices; mix them all well together, and set the bason in the hot sunshine, and let it continue there till the juice is dried away and the powder as dry as can be made by the heat, and being stirred 2 or 3 times every day; if it be too white, or too crumbly, repeat the operation with a small quantity of all the juices; if it be too hard and too sticky, repeat it with a little more allum; and in either case dry it, as before, in the sun. When it is right prepared, and the ingredients in due proportion, it will beat to powder in the middle of a hot day, but not in the morning or evening; and in the middle of the day, when it is dry, it will be of a darkish white colour; but in the morning darker. The best time for making this powder is in the last of May or beginning of June.

The Water.—Take the inner bark of sassafras root, the inner bark of logwood root, the inner bark of Spanish oak from the south side of the tree; of each an handful: boil these barks in a stone vessel with a gallon of rum, until it come to a quart; then pour it off, and sweeten it with honey; mix in half a gill of spirit of turpentine, and dissolve in it the quantity of a large nutmeg of fine allum, and the quantity of a small nutmeg of white vitriol.

This powder and water are to be applied in the following manner:—

Sprinkle the powder over the part affected, and cover it with lint, which must be picked, not scraped, and wetted in the water warmed in an oyster shell. Over all apply a piece of lead, and bind it on as tight as the person can endure it. This must be repeated every morning, and at every dressing observe to cleanse the

sore perfectly, and to keep it from the air as much as possible. Let not any water, except that here directed, touch the wound, not even for a considerable time after it is healed, for these cancers are very apt to break out again, unless healed very carefully and effectually. The patient is frequently inclined to fevers, and to be costive, then I generally give a purge or two of *Pill ex duobus*, but beware of mercury. To persons very full of blood, I give a few pills of conserve of red roses every day, and now and then let them blood. Sometimes these cancers, when imagined near cured, will be flush of blood. Then I apply a plaister of cedar, made by drying the leaves in a luke-warm oven, and rubbing them, and sifting them through a tiphanet, or a very fine search, and afterwards mixing the powder up to a consistence for spreading with honey; this plaister will drive the blood back, but should not be applied to any part of the body, in any sex, below the stomach. During the cure the patient should carefully abstain from strong liquor, and food seasoned with hot spices. And for his general drink, use a tea made of beet-root.

Papers, etc., Received.

Some Intestinal Cases, by Alfred C. Jordan, M.D. (Reprinted from "Archives of the Roentgen Rays: A Review of Physical Therapeutics," January, 1911.)

The Roentgen-Ray Examination of the Œsophagus, by Alfred C. Jordon, M.D. (Reprinted from the "Proceedings of the Royal Society of Medicine," December, 1910.)

Municipal Sanatoria for Phthisis, by John R. Steinhaeuser, M.D., D.P H., Medical Officer of Health for the Borough of Lewes. (Journal of the Royal Sanitary Institute, Vol. xxxi., No. 12.)

Man's Redemption of Man, by William Osler. (Constable & Co. Price, 1s. net.) The contents of this booklet are described as a lay sermon which was delivered at the McEwan Hall, Edinburgh, at a service for students in connection with the Edinburgh meeting of the National Association for the Prevention of Tuberculosis. Professor Osler shows how the advances of preventive medicine and organised effort have immensely reduced the mortality in small-pox, malaria, cholera, plague, and preaches a strenuous crusade against tuberculosis, and he is hopeful for the success of these endeavours, in "the day when a man's life shall be more precious than gold," whereas "now, alas! the cheapness of life is every day's tragedy!"

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the GAZETTE *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs.*

Sport.

Association Football.

GUY'S v. CASUALS.

This match was played at Honor Oak Park on Wednesday, February 1st. The ground was frozen hard, so no one could play their usual game; however, some interesting football was seen, Guy's eventually winning by the odd goal in five.

The Hospital commenced well, and for the first half hour were all round the Casuals' goal, during which time Veale scored twice. The visitors only got near twice in this half, but Green on one of these occasions found an opportunity to reduce the lead (2—1).

The rest of the game was more evenly contested, both sides being well together and combining cleverly. Densham equalised for the Casuals, but Bergh secured the lead again for the Hospital, who thus won by 3 goals to 2.

The forwards, though without Birks and King, combined well, though shooting was a matter of difficulty; Knott and Spong were capable substitutes. Camp and Neale were in good form, as was Keer; and Edey, who took the place of Russ, gave quite a good display. Rhys-Evans had little opportunity of showing what he could do. Team:—

GUY'S.—J. E. Rhys-Evans (goal); K. J. T. Keer, F. H. Edey (backs); A. F. Camp, H. B. Neely, C. D. Neale (half-backs); F. A. Knott, V. E. D. Bergh, R. M. Veale, R. W. Spong, D. Wain (forwards).

GUY'S HOSPITAL v. MARCIANS.

SECOND ROUND—INTERNATIONALE CHALLENGE DU NORD.

Played at home on Saturday, February 4th, and lost by the rather large margin of 4 goals to nil.

Birks and King were away from the forwards, both backs were also absent; but the Marcians were able to field a full side.

Guy's were evidently feeling the effects of the heavy list of matches and cup-ties they have lately been playing, and few took much active interest in the proceedings till late in the game. The Marcians, a heavy and speedy team, were very keen, and pressed almost continuously for half an hour, during which time they scored three times; the first two might have been prevented if the backs had kicked instead of dribbled. Evans made desperate efforts to save on each occasion. The Hospital, seeing a heavy reverse in store unless they woke up, quickly did so, and with a full side (Mitchell sportingly turning out), had almost as much of the second half as their opponents had of the first. Bevis, Bergh and Mitchell did very good work forward, everything but score, a fact which is chronicled and deplored week by week. All three halves kept them well supplied, Wain creating quite a surprise for his first appearance at half.

while Neale and his partner could give points to Russ and Keer in the matter of stopping a rush by covering each other effectively.

The game became very vigorous towards the end; if the home side were not the first to start rough play, they seemed to enjoy it more than their opponents.

It should be mentioned that no goals resulted from much strenuous effort on the part of the forwards, but the Marcians found the net once more, making the final score 4—0 in their favour. Team:—

GUY'S.—J. E. Rhys-Evans (goal); H. B. Neely, C. D. Neale (backs); A. F. Camp, C. L. Jones, D. Wain (half-backs); S. W. Bevis, C. J. Witts, R. M. Veale, V. E. D. Bergh, D. A. Mitchell (forwards).

GUY'S v. MIDDLESEX.

FIRST ROUND—HOSPITAL CUP.

Played at home on February 7th, with a full side out. Guy's had little trouble in winning this tie, the final score being 8 goals to nothing.

Only two were scored in the first half, Middlesex offering a resolute defence, while the Hospital forwards showed little inclination to shoot until close in, by which time they were usually knocked over. Veale scored both goals from excellent corners by Bevis and King.

On resuming, the home side quickly found the net twice more through Bergh and Veale. Then came some fast runs by King on the wing; from one of these he scored himself, and from a pass to Birks the latter ran through and scored No. 6. With the opposition tiring, the forwards gave a delightful exhibition of the short passing game. Two more goals came from Birks and Veale, though the others all assisted, and a one-sided game ended as stated.

For the losers, Montgomery, at centre forward, showed himself an excellent player, but received little support, and both backs defended well.

Guy's were not really tested, but in recent games, with few exceptions, have done well enough to show that the material and skill are there. These qualities are useless, however, in cup-ties unless men are absolutely fit, and all are urged, if they need urging, to set about at once to get themselves in the best possible condition.

Rugby Football.

GUY'S v. UNITED SERVICES.

This, the last of the home fixtures, was played at Honor Oak Park on Saturday, February 4th.

Guy's were well represented, but the United Services had not their full side. Abercrombie, Mann and Royle were their most noted absentees. The turf was a little slippery, but for all that a most excellent game ensued. Neither side spared itself, and the margin of points fairly well indicates the superiority of the Hospital team. It was a good win, and one that should portend even better things when the side plays together a bit more. The early success which fell to Guy's, through good work on Roberts' part, was most encouraging. Kennedy carried on Roberts' effort, and scored a try wide out. Stokes, with a fine kick, landed a goal. The Services were much more forceful after this. A dribble by Wodehouse, admirably executed, looked certain to end in a try, but a too energetic Service man got offside. Again Wodehouse showed up; other forwards joining in, they passed Lacey, but Harkness dropped back and saved the situation. Guy's had had many opportunities through the smartness of Saner and Medlock, but the passing of the centres was not quite up to the mark, and half-time arriving with no further addition to the score.

On resuming, a pass of Saner's went astray. Wodehouse was on the ball instantly, and, showing great control of it, reached the Guy's line, a final dive gaining his side a richly-earned try. Harrison's kick at goal hit the post. As the game proceeded, Guy's gradually showed to more advantage; the forwards gave Lyon no quarter, and the visitors were hard pressed. Stringer tried several times to break through, and a punt and a smart follow up of his enabled him to collar Lyon, and place his side in an admirable position. After a scrum or two the ball travelled along the line to Stokes, but Peet tackled well. Again the ball went in the same direction. A scrum followed by the corner. Saner whipped out, and, passing, followed to the left. Stringer was collared, but the ball was loosed, and Digby dashed over. The try was not improved, though Stokes made a good shot. The final score read:—

Guy's Hospital, 1 goal 1 try... ...	8 points.
United Services, 1 try	3 points.

GUY'S.—G. E. W. Lacey (back); L. B. Stringer, W. E. S. Digby, A. H. Harkness, A. L. Stokes (three-quarters); J. G. Saner, C. H. Medlock (halves); G. R. Hind, C. S. L. Roberts, W. S. Stranack, T. D. Stout, O. Parry-Jones, R. S. Kennedy, M. Tweed, V. Glendining (forwards).

REMARKS.—It was a good game, and well won, but the margin should have been greater. In the first fifteen minutes Guy's had many chances to score had the centres held their passes and given them better. Straight running is another great essential in all good back play. Harkness must also stop his man, go low and grass him. His failure to do so throws much work on his confrères and endangers the side. Lacey was excellent; the forwards quite good. Stringer and Digby were much the best of the three-quarters. Both halves played well behind forwards who were superior in the tight.

GUY'S v. LONDON WELSH.

This match was played at Wandsworth Common on Saturday, February 11th, and resulted in a win for the London Welsh by 1 goal 1 try to 1 try.

The game was disappointing, and the display of the Guy's men difficult to account for. They faced the wind to commence with, and this must have taken a great deal out of the forwards, one of whom did not seem to want a great deal more after half-time. Flooks came into the side in place of Digby, who was obliged to scratch, and Hind was, of course, away at Dublin. His absence means much, as his example is of great value forwards, while his own tremendous energy stimulates the other forwards to far greater effort than they showed on Saturday. The margin against Guy's would have been greater had not Lacey been at his best. He made no mistake, and found touch accurately on all occasions. Stringer's defence and touch-finding was also splendid, but much forward energy was wasted by some of the backs punting up field and failing to reach touch.

Guy's scored first. Stringer intercepted brilliantly, cleared right away, left the Welsh full-back standing, and grounded near the posts. The wind carried Stokes' kick just wide. The Welsh gained the lead just afterwards, a cross kick by Stokes being caught by a gust, and Roberts, the Welshmen's right-winger, secured. He had a clear run to Lacey, so had but to have his pass accepted by Parry to score. Evans kicked the goal.

After half-time, Guy's frequently got the ball, but the passing was not good; it was slow and obvious, and Harkness was unable to do much. He was tackled in possession constantly, so that the Guy's attack was somewhat disorganised. Stringer did his utmost; but one good three-quarter, however good he is, cannot always win the game. He was thoroughly marked. About ten minutes from the end, the Welsh got another try, Jenkins dribbling over the line. No goal resulted, and a hard game ended as given above. Team:—

GUY'S.—G. E. W. Lacey (back); L. B. Stringer, A. H. Harkness, T. Flooks, A. L. Stokes (three-quarters); J. G. Saner, C. H. Medlock (halves); C. S. L. Roberts, W. S. Stranack, R. S. Kennedy, T. D. Stout, V. Glendining, O. Parry-Jones, M. Tweed, R. Stout (forwards).

REMARKS.—The approach of the cup-ties leads one to detail these notes a little more pointedly. Lacey at full back quite excelled himself, as did Stringer. He tried his level best to turn the tide, but without avail. Harkness had an off day. He failed repeatedly to stop his man, and seemed unable to trick the opposition or draw it until too late to get rid of the ball. Flooks was very little in the picture. Stokes, having no openings made for him, should have tried to make them, but he was handicapped by the perpetual boring across the field of the other threes. Absence of straight running kills the wing man's chances, still, when points were so badly needed, Stokes would have been justified in taking a few determined runs when he did get the ball, instead of kicking so much. Saner was handicapped by injury, yet he got the ball well away. Medlock also passed it on, but after that it did not go very far. Nevertheless, in all fairness it should be stated that the Welsh tackling was very keen. Three Guy's forwards stood out pre-eminently: Roberts, Stranack and Kennedy. Stranack has never played better; he covered an enormous amount of ground. Tweed backed up well, but the backing and following up of the others was very poor. There was a lack of "devil." In the tight no fault could be found. The ball was heeled often and well, but what is needed is quicker and more following up, faster loose play altogether, more dash in the open, and more in the way of headlong and determined footwork.

Change of Address.

S. Keele, L.D.S., has relinquished practice at 8, Highbury Place, N., retaining that at 5, Upper Wimpole Street.

G. E. Lockyer, M.R.C.S., L.R.C.P., from Amesbury Wilts, to The Manor House, Much Wenlock, Salop.

S. Herbert Longhurst, L.D.S., L.S.A., from 41 to 42, Devonshire Place.

Fleet-Surgeon F. Davidson Lumley, R.N., from H.M.S. *Warrior*, to 1, Bridge Avenue Mansions, Hammersmith, W.

L. Myer, M.R.C.S., L.R.C.P., L.D.S., from 76, Wimpole Street, W., to 157, Sutherland Avenue, W.

Archie E. F. Peaty, L.D.S. Eng., from Guy's Hospital to 57, Newport Road, Cardiff.

W. O. Roberts, M.R.C.S., L.R.C.P., from 72, Lancaster Road, Carnforth, to 10, Honor Oak Park, S.E.

A. H. Spicer, M.B., B.S., from Petworth, Sussex, to 3, Cleveland Terrace, Hyde Park, W.

Birth.

CAMPS.—On December 28th, 1910, at 1, Udney Park Road, Teddington, to the wife of P. W. L. Camps, a son.

[Through an oversight, this notice was omitted from the last issue of the GAZETTE.—ED.]

Marriage.

INGRAM—PACKMAN.—On February 1st, at St. Clement's Church, Ilford, Essex, by the Rev. Lach-Syrma, M.A., Vicar of Aldenborough Hatch, Sydney William Ingram, L.D.S. Eng., eldest son of Mr. George Ingram, of Barkingside, Essex, to Ethel Emma, second daughter of Mr. and Mrs. Packman, of Ilford.

ED.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Passim.

WE have heard a great deal lately of epidemics and rumours of epidemics. First, there is the great outbreak of plague in the Far East, and this has had more than a general interest for us in England owing to the undoubted presence of the disease among rats in East Anglia. More commonplace, but none the less serious, has been the widespread epidemic of measles in this country. Measles accounted for 132 deaths during the past week, or three times the corrected average. We should like, in passing, to comment favourably upon the action of the Metropolitan Asylums Board in deciding to admit a certain number of measles cases to their hospitals. It is to be hoped that this may lead to a more general hospital treatment of measles. Lastly, there has been what the *Lancet* quaintly describes as a "smart little outbreak of small-pox" in the East End of London, which must inevitably lead to a re-opening of the old old controversy as to the merits of vaccination.

MANY old Guy's nurses must have heard with great sorrow of the death of Miss Eva Lavy, under particularly tragic conditions, towards the end of last year. Miss Lavy, after her training at Guy's, left in 1904 for Baghdad, in order to take part in missionary work in association with her brother, the Rev. E. E. Lavy, a C. M. S. missionary there. Her return from her first furlough was booked via Marseilles, but owing to the French railway strike she joined the S.S. "Kurdistan" at Manchester. The ill-fated steamer foundered in a heavy sea some fifty miles off the Scilly Isles on October 20th, 1910. A widespread desire has been expressed that there should be some permanent memorial to perpetuate her memory. It is therefore proposed to raise a fund for the building of a ward in the Baghdad Hospital, to be named "The Eva Lavy Memorial Ward." We feel sure that some of those who knew Miss Lavy at Guy's, and may hear of the proposed memorial through the GAZETTE, will wish to contribute to the fund. Donations may be sent to either of the Secretaries of the fund:—Mr. T. H. Baxter, 20, Compton Terrace, Islington, N., or Mr. R. H. Everett, 16, Alwyne Square, Canonbury, N.

THE Dental Staff of the Hospital has recently been increased by the appointment, made at a Court of Committees, of Messrs. E. B. Dowsett and F. J. Pearce as Assistant Dental Surgeons.

WE understand that several members of the hospital have considered the possibility of forming a motor club, and that in order to inaugurate this enterprise it is proposed to have a run (weather permitting) to Sevenoaks to-morrow, Sunday, March 5th. A start will be made from the White Swan, Bromley, at 2 p.m., and all men who have machines are invited to turn up. We wish the new club

every success, and a minimum of accidents. Often, in the College Courtyard, we have marvelled at the skill displayed by the owners of these machines in the diagnosis and treatment of their illnesses, for indeed they seem to be always ailing. If, sometimes, the owners are able to have a "run for their money" on a Sunday, it is only right that they should be rewarded for a week of hard work at repairs and cleaning of their machines.

The first of Dr. A. E. Boycott's Milroy Lectures on "Ankylostoma Infection" at the Royal College of Physicians, was held on March 2nd, and the other two lectures will be held on March 7th and 9th. Dr. Hertz will deliver the Goulstonian Lectures on "The Sensibility of the Alimentary Canal in Health and Disease," on March 14th, 16th and 21st.

A Hunterian Lecture on "The Association of Disease of the Mouth with Rheumatoid Arthritis and certain other forms of Rheumatism" will be delivered in the theatre of the Royal College of Surgeons on Monday next, March 6th, by Professor W. Goadby, M.R.C.S., L.D.S.

Change of Address.

C. H. Bradnam, L.D.S. Eng., from 20, St. Peter's Green, Bedford, to 29, Church Road, Tunbridge Wells.

H. J. Coish, from 36, Upper Park Road to 18, Park Hill Road, Hampstead, N.W.

G. H. Drake, L.D.S., from 54, Old Elvet, Durham, to 4, Golder's Green Crescent, N.W.

David Forsyth, M.D., D.Sc., F.R.C.P., from 43, Queen Anne Street, Cavendish Square, W., to 74, Wimpole Street, W. (Telephone unchanged.)

C. F. Fothergill, B.A., M.B., B.C., from "Rose Bank" to "Hensol," Chorley Wood, Herts.

E. Rowland Fothergill, M.B., B.S., from Torquay House, Southfields, S.W., to 38, Dyke Road, Brighton.

E. B. Harris, from 1, Holy Innocents Road, Tottenham Lane, N., to St. Dunstan's, Muswell Hill, N.

Lieut. Douglas A. Mitchell, R.N., from R.N. Barracks, Portsmouth, to H.M.S. *Terrible*, Portsmouth.

Wm. Reynolds, from Guy's Hospital to Royal Isle of Wight County Hospital, Ryde.

T. Turner, M.B., B.S., from "Holmwood," Milnthorpe Road, to 1, Hardwick Road, Eastbourne.

Notes on Clinical Chemistry.

By J. H. RYFFEL.

Examination of Urine.—*Continued.*

Pus in urine gives the guiac test feebly owing to the presence of oxidase. If the urine be boiled, this test is no longer positive, as the oxidase is destroyed. As pus is not a chemical substance, it can only be recognised as such by the microscope.

Hæmaturia and Hæmoglobinuria.—If after boiling the urine, to eliminate oxidase, the guiac test is positive, the urine should be placed in a conical glass and examined carefully with the pocket spectroscope. The depth of liquid examined can be varied by moving the conical glass up or down. The direct light from the sky is much preferable to artificial light. Oxyhæmoglobin, if more than a mere trace is present, will be easily recognised by its spectrum; but methæmoglobin, which is, however, relatively rare, gives a much less sensitive spectrum. Hæmaturia is naturally distinguished from hæmoglobinuria by the presence of red corpuscles in the urine, but if the urine be ammoniacal these are often not seen under the microscope, as they have been laked by the ammonia.

Bile pigment, if present in small quantity, especially when urobilin is present, is difficult to recognise directly. When, therefore, bile pigment is suspected, but is not obvious, calcium carbonate should be precipitated in the urine so as to separate the pigment. For this purpose calcium chloride solution is added to the urine, followed by sodium carbonate solution. The resulting precipitate is filtered off, washed with a little water and redissolved in fairly dilute hydrochloric acid. If the resulting acid solution be of considerably less volume than the urine employed to start with, the pigment will be concentrated as well as purified, and will now, if present, give Gmelin's play of colours. This test may be performed either by adding a few drops of fuming nitric acid to a little of the liquid in a white dish, or by running the liquid on to a few c.c. of ordinary nitric acid in a test tube.

Urobilin in the urine shows on spectroscopic examination a broad band in the blue green. If there is much of the pigment present the diluted urine will have a pink tint, and will show the absorption band clearly. If the band is not distinct either in the original or diluted urine, the original urine is extracted in a test-

tube with about a third of its volume of amyl alcohol after the addition of a few drops of concentrated acetic acid. If the test-tube has not been violently agitated, the amyl alcohol quickly rises to the top of the tube with the urobilin in solution, but often remains as a froth, which can be broken up by the careful addition of alcohol. When the upper liquid has become clear it shows the urobilin band. On separating or pipetting it off and adding about one-fourth its volume of saturated alcoholic zinc acetate, a green fluorescence develops, which increases on standing.

Urobilin is identical with the stercobilin of fæces, which is formed from bile pigment by bacterial action. Its occurrence in urine in sufficient quantity to be recognised by the above test is pathological, but as it is associated with jaundice, pyrexia, hæmolysis, liver and intestinal disease, it is not of much direct diagnostic value. Apart from jaundice, its appearance in quantity may, however, be taken as an indication of considerable disturbance of metabolism. The urine of pernicious anæmia by no means always shows much urobilin.

Indican.—To about 10 c.c. urine in a test-tube are added an equal volume of strong hydrochloric acid and about 5 c.c. chloroform. Liquor sodæ chlorinatæ (sodium hypochlorite) somewhat diluted with water is then added a drop at a time, the contents of the test-tube being mixed after the addition of each drop. The indoxyl liberated from the indican by the hydrochloric acid added is oxidised to indigo and extracted by the chloroform, which thus turns blue or purple. Excess of hypochlorite destroys the colour, so that it must be added very carefully. The use of ferric chloride instead of hypochlorite is not to be recommended. Some reaction for indican is normal, and there is considerable individual variation, so that it is only when the reaction is very marked that it can be called pathological.

Indican represents indol absorbed from the intestine, where this is formed by the action of bacteria on the tryptophane in the protein of the food. Experimentally in animals a great increase of indican in the urine has been obtained on obstructing the small intestine, but not the large intestine. In the former, obstruction causes a great increase in bacterial activity in the presence of a considerable amount of protein; in the latter, the available protein has already been largely absorbed. By analogy, a marked reaction for indican should be useful in the diagnosis of obstruction affecting the small intestine, but should not be a characteristic feature of simple constipation. Indicanuria may also be due to bacterial decomposition of protein in abscesses, etc.

Examination of Gastric Contents.

Hydrochloric acid.—The most important measure of the secretory activity of the gastric mucous membrane is the so-called active hydrochloric acid, *i.e.*, the hydrochloric acid which is not combined with fixed bases, such as sodium, calcium, etc., but may be either free or combined with protein. For its estimation the gastric contents should be obtained one to one and a half hours after a test meal containing little protein, such as one pint of weak tea, with a little milk and sugar if required, and a round of thin buttered toast. The gastric contents so obtained are filtered without dilution. 10 c.c., or better, 20 c.c., are measured into a small porcelain dish, rendered alkaline with sodium carbonate, evaporated on the water bath, and then ignited at as low a temperature as possible until charring is complete. Willcox recommends adding water and a little nitric acid to the residue after cooling, and performing a Volhard estimation directly, but the silver chloride present renders the end point rather faint, so that for general use it is safer to proceed as follows:—The residue from ignition is heated with distilled water and a little strong nitric acid, and then washed into a 100 c.c. measuring flask; 30 c.c. $\frac{N}{10}$ silver nitrate are added from a pipette, for 20 c.c. vomit originally employed, and the volume is made up to 100 c.c. The excess of silver is then determined by filtering and titrating 50 c.c. of the filtrate with $\frac{N}{10}$ potassium sulphocyanide, as described in the Volhard estimation of chloride in urine. The total chloride in the gastric contents is thus determined. A similar estimation, performed on the same volume of gastric fluid as before, but without the addition of sodium carbonate, measures the fixed chloride. The calculation of the active hydrochloric acid from the difference between these two results for 20 c.c. gastric fluid is as follows:—

Active HCl in grm. per 100 c.c.

$$= \frac{\frac{100}{50}(b-a) \times 3{\cdot}65 \times \frac{100}{20}}{1000} *$$

where a and b are the volumes in c.c. of $\frac{N}{10}$ sulphocyanide employed in the first and second estimations respectively.

* The equivalent for HCl is 36·5, that for Cl 35·5. The figure for Cl was by an unfortunate error given as 36·5 in the previous section on chloride in urine.

Willcox gives the normal active HCl as from 0·1 to 0·2 per cent., usually about 0·15 per cent., after such a test meal as that given above. In carcinoma of the stomach he has invariably obtained a result below the normal, while in gastric ulcer the figure may be as high as 0·3 per cent.

The fresh gastric contents should also be tested with litmus, congo red, and Gunzberg's reagent. If Gunzberg's test is positive, free HCl is present and the active HCl will not be low, but it may, of course, be high. If litmus alone shows the presence of acid, the active HCl is almost certainly low, and lactic acid is probably present. A feeble reaction with congo red is not inconsistent with a low value for active HCl and the presence of lactic acid.

Lactic Acid.—Uffelmann's test is practically of no value, Hopkins' thiophene test may be applied directly as follows, if there is not much organic matter present:—About 5 c.c. of the filtered vomit are rendered alkaline with sodium carbonate and evaporated to dryness in a dish on the water bath. The residue is dissolved in about 5 c.c. strong sulphuric acid and transferred to a dry test-tube. A drop of strong copper sulphate solution is added and the tube heated in boiling water for two minutes. The tube is then cooled and two or three drops of an alcoholic solution of thiophene (20 minims in 100 c.c. alcohol) are added and the tube is again warmed. A cherry-red colour shows the presence of lactic acid. If there is too much charring for the colour to be seen, the lactic acid must be extracted with ether, as follows:—20 to 30 c.c. of the filtered vomit are acidified with phosphoric acid and shaken in a separating funnel with about three times the volume of pure ether. After settling, the aqueous liquid is run off and the ether transferred to another funnel, where it is shaken with dilute sodium carbonate. The sodium carbonate solution, which must still be alkaline, is evaporated on the water bath and employed as above for the test with sulphuric acid, etc.

Blood in gastric contents cannot generally be recognised directly by the spectroscope, as it has been transformed mainly to a dark-coloured precipitate, which can, however, be converted to acid hæmatin as follows:—A few c.c. of the unfiltered contents, or of the suspension in water of the residue on the filter paper after filtration, are well mixed with a roughly equal volume of glacial acetic acid in a test-tube. Ether is then added and the contents of the tube again mixed. Finally, water is added until the ether separates. The ether extract will show an absorption band in the red, if sufficient acid hæmatin be present, and will, on separating from the aqueous layer, give the guiac or benzidine test. As neither oxidase nor metallic oxygen carriers can be present in the ether extract, the guiac or benzidine test thus applied forms a sensitive and reliable test for blood, which can also be applied in a similar manner to fæces.

Examination of Urinary Calculi.

The calculus is first cut open and examined for different layers, which may then be tested separately. The material selected is powdered in a mortar and to it are applied the following tests:—

Uric acid. Murexide test.—A small portion of the powder is placed in a dish, mixed with a few c.c. of water and a few drops of strong nitric acid, and rapidly evaporated to dryness by heating on wire gauze, the dish being manipulated so as to prevent overheating. On adding ammonia to the cooled residue a red colour is obtained, which turns bluish purple with strong caustic soda.

Phosphate. Molybdic acid test.—A small portion of the powder is ignited on a piece of porcelain, cooled and dissolved in moderately diluted nitric acid. This solution is then added gradually to about 5 c.c. nitromolydic acid solution, which is kept boiling in a test-tube. A fine yellow precipitate shows the presence of phosphate.

Calcium oxalate.—The powdered material is heated in a test-tube with a little water and a few drops of strong hydrochloric acid. The solution is filtered, if necessary, and rendered alkaline with ammonia. A white crystalline precipitate, insoluble in acetic acid, shows the presence of calcium oxalate.

The calcium may be confirmed by heating a little of the powdered calculus moistened with strong hydrochloric acid on a platinum wire in a Bunsen flame. A brick-red flame colour, showing bands in the red and green by the pocket spectroscope, proves the presence of calcium. Calcium phosphate gives no flame colour.

According to the catalogue of the Museum of the Royal College of Surgeons, uric acid and urates are the commonest constituents, at any rate of the nuclei of urinary calculi. This statement represents the results of careful analysis, but the collection is an old one. Recently, Rowlands has published the results of qualitative analyses of 22 calculi from the Liverpool district, and states that uric acid was absent from 19 out of the 22 calculi, while calcium oxalate was almost invariably present.

He further states that the appearance of the stone is no criterion of its composition. This result has been confirmed by Mackarell, Moore and Thomas, who analysed quantitatively 24 calculi also from the Liverpool district, and found only small quantities of uric acid in all the calculi except one, which contained 97 per cent. uric acid, while calcium mainly as oxalate was present in large quantity in all the calculi except this one. Those stones which have been analysed at Guy's Hospital in recent years also support the statement that calcium oxalate is especially common, and uric acid, or urate, relatively rare even as a nucleus. The conclusion is obvious, that there is a modern tendency for calcium oxalate to replace uric acid in calculi. The cause may very likely be the change which has certainly taken place in the general diet in the last fifty years, more vegetables and fruit and less meat being commonly taken.

Anaesthetics in the Guy's Dental Department.

THE statistics of the Out-Patients' Dental Department at Guy's show that 5,333 general anæsthetics were administered during the year 1910.

Nitrous oxide gas was the anæsthetic almost invariably given, and the results were highly satisfactory.

Local injection anæsthetics were also given to the number of 1,135, as compared with about 1,200 in the previous year.

Novocain "E" dental tablets were used—

Novocain	0·02 gramme	= ⅓ gr.
Suprarenin borate ...	0·000075 „	„
Sodium chloride ...	0·009 „	„

One tablet dissolved in twenty minims of water, first boiled, was the usual form of injection, but two tablets dissolved in thirty minims of sterilized water were often used in adults for the extraction of several teeth. The results were considered very successful both by the patients and the staff.

Faintness was experienced by some few of the patients, but the symptoms were at once relieved by the ordinary treatment.

It is thought that the healing process following extraction under local injection anæsthesia is not so rapid as under ordinary extraction. This is due to the suprarenin borate causing contraction of the blood-vessels, and thereby diminishing hæmorrhage and the formation of the natural blood-clot in the tooth socket.

It may be said that the popularity of local anæsthetics has increased enormously during the past few years. Injections are made daily in the Dental Department, and regulations for their use will shortly be issued.

Guy's Hospital.

Dispensary and Pharmaceutical Laboratory Report for 1910.

The total number of attendances at the Dispensary during 1910 was 221,847, compared with 203,455 in 1909, 198,332 in 1908, 204,869 in 1907, 206,443 in 1906, and 199,974 in 1905. These out-patients are divided into those who pay 3d. per week for medical supplies, and those who, pleading inability to pay this small amount, receive their medicine and dressings free. The details for the last two years are given below :—

DISPENSARY ATTENDANCES.

1909	Medical.	Surgical.	Casual.	Total.
Paying ...	66,436	25,437	68,499	160,372
Free ...	7,060	3,740	32,283	43,083
Total ...	73,496	29,177	100,782	203,455
1910				
Paying ...	65,001	30,953	68,434	164,388
Free ...	8,318	6,170	42,971	57,459
Total ...	73,319	37,123	111,405	221,847

This increase of 18,392, which is seen to be composed of surgical and casual cases entirely, has taxed the resources of the Dispensary staff, and has necessitated the engagement of a sixth dispenser.

RECEIPTS.

The following table gives the amount of money received at the Dispensary in the last two years:—

	1910 £ s. d.	1909 £ s. d.
Out-Patients... ...	2,056 15 6	1,984 15 6
Sale of Drugs ...	111 2 11	113 3 7
Net Profit on Sale of Bottles to Out-Patients	92 0 4	92 5 4
Goods supplied to the Medical School ...	92 8 6	105 2 3
Goods supplied to the Dental School ...	53 4 2	44 19 11
Goods supplied to the Institution ...	23 14 0	22 15 9
	£2,429 5 5	£2,363 2 4

In addition to the above, chemicals have been supplied to the various departments to the value stated below :—

	£ s. d.	£ s. d.
Skiagraphic Department	7 16 3	10 10 7
Medical Skiagraphic Department	8 18 8	11 1 10
Works Department ...	5 6 3	7 2 0
Laundry	1 13 3	1 7 0
	£23 14 5	£30 1 5

The total cost of drugs and dressings during 1909 and 1910 is given below from figures supplied by Mr. Williams, Clerk to the Governors :—

	1910	1909
	£	£
Drugs	2,884	2,773
Dressing	2,693	2,496
	£5,577	£5,269

ANTISEPTICS.

	Quantity Used. 1910	1909
Acid Boric	26 cwt.	32 cwt.
Acid Carbolic	30 cwt.	30 cwt.
Chinosol	6 lbs.	6 lbs.
Cresol	414 gals.	280 gals.
Formaldehyde	536 lbs.	650 lbs.
Hydrogen Peroxide (20 volumes) ...	442 gals.	485 gals.
Iodoform	28 lbs.	28 lbs.
Lysol	918 gals.	760 gals.
Mercuric Chloride ...	89 lbs.	49 lbs.
Mercuric Iodide	10 lbs.	4 lbs.

	Cost. 1910	1909
	£ s. d.	£ s. d.
Acid Boric	33 6 6	38 15 6
Acid Carbolic	54 16 8	77 14 0
Chinosol	3 4 6	3 5 0
Cresol	28 9 11	19 11 6
Formaldehyde	9 9 6	11 12 3
Hydrogen Peroxide (20 volumes) ...	44 12 8	50 7 5
Iodoform	16 2 0	16 5 6
Lysol	171 1 0	156 15 1
Mercuric Chloride ...	12 6 5	7 18 3
Mercuric Iodide	4 11 0	1 9 0
	£378 0 2	£383 13 6

ANÆSTHETICS.

	Quantity Used. 1910	1909
Absolute Alcohol	393 lbs.	566 lbs.
Chloroform	672 lbs.	756 lbs.
Cocaine and its Salts ...	19 ozs.	14 ozs.
Ether	1,232 lbs.	930 lbs.
Ethyl Chloride	96 tubes	204 tubes
Eucaine Lactate	2 ozs.	2 ozs.
Nitrous Oxide	9,300 gals.	11,200 gals.
Novocaine	—	—
Stovaine	—	—

	Cost. 1910	1909
	£ s. d.	£ s. d.
Absolute Alcohol	74 6 6	118 13 5
Chloroform	49 9 9	55 19 4
Cocaine and its Salts ...	8 7 9	5 9 6
Ether	118 6 0	91 16 6
Ethyl Chloride	6 11 0	16 9 4
Eucaine Lactate	0 18 3	0 16 6
Nitrous Oxide	15 2 3	18 3 0
Novocaine	1 2 6	0 12 0
Stovaine	—	0 7 4
	£274 4 0	£308 6 11

The much smaller amount of absolute alcohol used is due to the fact that special permission has been granted to the hospital by the Excise authorities to employ absolute alcohol for sterilizing purposes in the wards on which no duty is paid; and permission has also been given to re-distil, when possible, that already used. For this purpose 30 gallons of duty-free alcohol have been obtained at a cost of 3s. 6d. per gallon (compared with 32s. per gallon for duty-paid alcohol), and 12 gallons of this have been re-distilled in the dispensary and used again.

It will be noted that the quantity of ethyl chloride used during the past twelve months is only half of that used in the previous year. More ether and less chloroform have been used, the increase and decrease as compared with 1909 being 302 and 84 lbs. respectively.

There is an increase of £137 in the cost of dressings, due in part to the fact that lint and absorbent wool have cost respectively ½d. and ¼d. per lb. more in 1910 than in 1909.

The other items show very slight variation either in the quantity used or the cost.

Boric Lint, which is used fairly largely, is relatively more expensive than the unmedicated kind.

SERA.

	Quantity Used. 1910	1909
Anti-Anthrax Serum ...	100 ccs.	120 ccs.
Anti-Colon Bacillus ...	875 ccs.	350 ccs.
Anti-Diphtheria	2,880 ccs.	2,880 ccs.
Anti-Meningococcus ...	320 ccs.	370 ccs.
Anti-Pneumococcus ...	20 ccs.	100 ccs.
Anti-Streptococcus ..	3,250 ccs.	2,880 ccs.
Anti-Tetanus	660 ccs.	660 ccs.
Anti-Thyreoidin ... (Mœbius) ...	—	9 bots.
Normal Horse Serum ...	5,110 ccs.	890 ccs.

	Cost. 1910	1909
	£ s. d.	£ s. d.
Anti-Anthrax Serum ...	1 13 4	2 0 0
Anti-Colon Bacillus ...	10 10 9	3 7 7
Anti-Diphtheria	57 12 0	41 10 3
Anti-Meningococcus ...	4 9 0	9 5 0
Anti-Pneumococcus ...	0 13 6	2 7 4
Anti-Streptococcus ...	71 15 2	42 12 2
Anti-Tetanus	13 4 0	11 0 11
Anti-Thyreoidin ... (Mœbius) ...	—	1 13 6
Normal Horse Serum ...	19 0 3	3 6 9
	£178 18 0	£117 3 6

SPECIAL ITEMS.

The following figures are given to show the large amount spent on a few items :—

	Quantity Used. 1910	1909
Bismuth Salts	300 lbs.	228 lbs.
Camphor	270 lbs.	330 lbs.
Cod-Liver Oil	300 gals.	150 gals.
Glycerin	32 cwt.	36 cwt.
Honey	41 cwt.	38 cwt.
Malt Extract	180 cwt.	190 cwt.
Potassium Iodide... ...	336 lbs.	282 lbs.
Rectified Spirit	100 gals.	250 gals.
Methylated Spirit ...	1,440 gals.	1,760 gals.
Sugar	81 cwt.	66 cwt.

	Cost. 1910	1909
Bismuth Salts	£ s. d. 108 1 1	£ s. d. 83 18 9
Camphor	22 7 8	31 1 0
Cod-Liver Oil	60 0 0	20 2 0
Glycerin	146 12 0	120 0 0
Honey	54 17 3	53 16 3
Malt Extract	204 15 0	216 10 0
Potassium Iodide ...	124 9 8	107 14 10
Rectified Spirit	129 3 4	279 3 4
Methylated Spirit ...	140 0 0	164 4 6
Sugar	76 13 0	48 11 7

PHARMACEUTICAL LABORATORY.

The work of this section has included the following:—

	1910	1909
Collodions	13 gals.	12 gals.
Confections	½ cwt.	1 cwt.
Dentifrices	2 cwt.	3 cwt.
Lotions	5,000 gals.	5,500 gals.
Liniments	300 gals.	300 gals.
Mixtures	9,500 gals.	9,000 gals.
Ointments	37 cwt.	40 cwt.
Plasters	4,830 yards	5,000 yards.
Syrups	900 gals.	800 gals.
Tablets (Compressed) ...	12 cwt.	7 cwt.
Tinctures and Liquid Extracts...	310 gals.	300 gals.
Soda Water ...	32,943 syph.	28,400 syph.

MEMORANDA.

Among the items of special interest, and illustrating current methods of treatment, are the following:—

Carbon Dioxide.—About 3 dozen cylinders (each containing 28 lbs. of gas), at a cost of £6 10s., have been used for freezing purposes in the Light Department. Now that the experience has been gained as to the most economical method of obtaining the solid substance, it is apparent that this will be an inexpensive form of treatment.

Ernutin has decreased from £16 in 1909 to £6 in 1910, while preparations of the Pituitary Gland have increased from £2 12s. in 1909 to £36 10s. in 1910.

Glycerin.—32 cwts. of glycerin, at a cost of £146, have been used, against 36 cwts., at a cost of £120, in 1909. Glycerin has increased in cost from 52s. per cwt. to 95s. per cwt.

Grindelia has come into use, 56 lbs. having been used at a cost of £5, while the demand for Balsam of Peru has completely fallen off.

Liquid Paraffin.—About 3 cwt. of liquid paraffin, at a cost of 4½d. per lb., have been used.

Salvarsan, to the extent of £6, was obtained the last fortnight in the year.

Formaldehyde Tablets.—About 6 cwt. of formaldehyde tablets have been made in the past year.

HORACE FINNEMORE, B.Sc. Lond.,
Pharmacist to the Hospital.

February, 1911.

Specimens recently added to the Dental Museum.

Dental Surgery Section.

Geminated second and third upper molars. E. Ashby.
Geminated second and third upper molars. J. Spiller.
Geminated second and third upper molars. G. Hunt.
Geminated second and third upper molars with enamel nodule. C. G. Lewis.
Geminated lower lateral incisor and supplemental. W. A. Maggs.
Model showing marked raising of the cingula of the upper lateral incisors. E. E. Solomon.
Model showing transposition of upper canine and first premolar on right side due to retention of temporary canine. G. Hunt.
Models showing transposition of both upper canines with first premolars due to retention of temporary canines. C. G. Lewis.
Model showing supernumerary tooth in upper incisor region. W. A. Maggs.
Model showing supernumerary tooth in right upper molar region. G. Hunt.
Epulis removed from between first and second upper molars. E. B. Dowsett.
Model showing myeloid epulis between lower incisor and canine. E. B. Dowsett.
Model showing epulis between first and second lower incisors. G. Hunt.
Lower molar tooth with large polypus of gum. J. L. Payne.
Models of upper and lower jaws from patient suffering from acute lymphatic leucocythemia. W. J. Pidgeon.
Tooth showing large polypus of the pulp. G. Hunt.
All the upper teeth extracted from a male of 24 suffering from neuralgia, each tooth showing marked exostosis. H. Graves Morris.
Lower molar tooth showing bulbous exostosis. E. B. Dowsett.
Lower third molar showing deep absorption cavity. P. E. Henry.

Lower second molar showing absorption caused by impaction of third molar against it. E. B. Dowsett.

Tooth showing marked absorption at apex due to defective root filling. E. B. Dowsett.

Model of upper jaw showing large exostoses of alveolar process on both sides in a man aged 60. E. B. Dowsett.

Model showing symmetrical exostoses on inner side of mandible. H. Holborn.

Upper premolar tooth showing dilacerated root. N. Edgar.

Two upper incisor teeth showing dilacerated roots. E. B. Dowsett.

Models and tooth from a case of dental cyst in upper premolar region. G. Hunt.

Two upper central incisor teeth of South African negro showing the peculiar custom of filing the cutting edges to a point. H. J. Spain.

Large salivary calculus extracted from Wharton's duct. W. A. Maggs.

Lower incisor tooth showing large deposit of salivary calculus on both lingual and buccal aspects. E. B. Dowsett.

X-ray photograph showing the result after a compound and comminuted fracture of mandible four years previously. B. H. Martin.

X-ray photograph showing impacted lower third molar. B. H. Martin.

Radicular odontome of lower molar. E. B. Dowsett.

Twelve teeth showing erosion cavities. E. B. Dowsett.

Three upper incisors showing abrasion due to dentures. E. B. Dowsett.

Sequestrum carrying two lower molar teeth, caused by alveolar abscess. J. Hochapfel.

Models of upper jaw showing a case of replantation of upper left central incisor after injury. M. F. Hopson.

Comparative Dental Anatomy Section.

Skull of wolf-fish. F. J. Pearce.
Skull of hake. G. Hunt.
Skull of frog. R. Powell.
Skull of newt. R. Powell.
Skull of salamander. R. Powell.
Skull of Agama lizard. R. Powell.
Skull of python. R. Powell.
Skull of whip snake. R. Powell.
Skull of tree snake. R. Powell.
Skull of moon snake. R. Powell.
Skull of viper. R. Powell.
Maxillary bones of cobra. R. J. Gibbons.
Tooth of sperm whale. F. J. Pearce.
Tooth of hippopotamus. F. J. Pearce.
Skull of rabbit. E. B. Dowsett.
Skull of mole. E. B. Dowsett.
Skull of hedgehog. E. B. Dowsett.
Skull of cat. E. B. Dowsett.
Skull of dog. E. B. Dowsett.
Skull of cat. F. J. Pearce.
Skull of dog. F. J. Pearce.
Skull of British otter. S. J. F. Webb.
Skull of bear. F. J. Pearce.
Skull of chimpanzee. F. J. Pearce.

Guy's Hospital Debating Society.

A MEETING of the Society was held in the College Smoking-room on Saturday, February 25th. Mr. A. R. Thompson was in the chair. Notice was given of motions to be brought forward in business at the next meeting, one having regard to the Annual Dinner, and one proposing that debates should not always be held on Saturday nights. The motion for the evening was, "That in the opinion of this House the continuance in office of the present Government spells ruin for the Empire."

Mr. GODDING, opening the discussion, prefaced his arguments with a complaint to the effect that the gentleman who had undertaken to write his speech had played him false. (A voice, Shame!) He then proceeded to enumerate his objections to the policy of the present Government and his reasons for anticipating Imperial ruin should they long remain in office. First and foremost, he declared, they persisted in adhering to the Free Trade system, a most pernicious one, the effects of which were a continual cutting-down of our working-men's wages, and the destruction of our trade and manufactories. Again, the Liberals had brought in an Eight-hours Bill which was calculated to still further cripple the wage-earning capacity of the working-classes, and the Compensation Act, which was a most unjust hit at the employers. Now, too, they proposed to introduce the system of Payment of Members into a country already overburdened with taxation, a system, moreover, which would tend to make politics more a mercenary pursuit than a patriotic career. By refusing Colonial Preference they were severing the bonds that linked us to our over-sea Dominions, and simultaneously denied them the protection which an Imperial Navy would provide. By granting Home Rule they were going to render Ireland an imminent source of danger to the Mother Country, solely to please a Party which drew its income from the Americans, a people who must necessarily be interested in our downfall. In conclusion, he emphasized his view that the Government had no general policy for the welfare of the Empire.

Mr. SANDISON, opposing, urged that the Liberals did not constitute an entirely disruptive agency, as witness the manner in which they had succeeded in uniting the lion with the lamb on the Opposition benches, where we beheld a notorious Tory and a rampant Socialist seated and striving in unison. In fact, he considered that on these grounds alone the Government must be possessed of no small cohesive power. Considering the question in detail, he remarked that the hon. proposer had given an entirely misleading definition and description of Free Trade. Under the proposed alternative, Protection, it would

not be the foreigner who paid, as the purveyor would be certain to add to the price of the article sold the amount of the duty paid on it. The proposer seemed to have utterly failed to grasp the elementary fact that goods were paid for by goods, and that consequently money was not being drained out of the country. In Protectionist countries, where Members of Parliament were paid, all kinds of back-stair intrigues resulted from the fact that certain trades and industries were affected by the tariffs. In regard to Payment of Members, it was certainly a pity that many good men—and surely just as patriotic—should be debarred from sitting, merely because they had not sufficient wealth. Further, the principle of payment had long been adopted in the Colonies, and with great success. Any attempts to force the Colonies into an agreement in regard to tariffs would tend to disruption rather than union. So far from ruining the Empire, the Liberals had already succeeded in adding to it yet another goodly portion. The settlement of South African affairs was one great example of the success of their conciliatory policy. In regard to Ireland, did the hon. proposer really think that the Government were under the thumb of the Irish? No one, he was glad to say, had had the insolence to mention the Dollar Dictator cry in the House. The hon. proposer had complained of a lack of general policy on the part of the Liberals. Where, he asked, was the general policy of the Conservatives? The Liberals had at least a clear policy in regard to the Lords, and a clear programme in regard to Social Reform. Finally, he could see no immediate alternative to the present Government—the Unionist Party being in an altogether too chaotic state, and on aforementioned grounds alone, considered the Empire to be safe in the hands of the Liberals.

Mr. Neft said it had been the aim of his life to find himself on the same side of the House as a Tory. He congratulated his leader on the deft manner in which he had led their opponent off the track. None of the things mentioned—such as Colonial Preference, Home Rule, etc.—mattered one bit, for in all countries the problems of the people were the same. In spite of the advent of a Liberal Government, the percentage of persons on the verge of starvation had not altered. The Liberal Government, he thought, was even worse than a Tory one, since it assumed a saintly, mock-humanitarian garb. It doled out 5s. to the old people of seventy, blinding itself to the fact that those same old people had been persistently robbed throughout their lives. The present Government, in short, combined all the faults of Tory Governments with a vast hypocrisy.

Mr. Mullally objected that the previous speaker had been discussing the ruin of the People. The People and the Empire were very different things. Socialism would mean the ruin of the Empire, but all were not agreed as to whether this was desirable or not. For his own part, he was a Socialist. Taking the word "ruin" to imply "dismemberment," he pointed out that the present Government had done something, though not much, to improve the positions of India and Egypt, had cemented various Ententes, and otherwise made good our credit among nations. Above all, they were about to grant Home Rule to Ireland, a step which would greatly better things Imperial. A happy, peaceful Ireland close at hand would be of greater value than fifty far away dominions, and dominions which, after all, added very little to the prestige of England.

Mr. Crosse expressed himself as a supporter of the proposition, not in detail (for he was not a politician), but on broader grounds of principle. The present Government was, he objected, entirely in the hands of the Irish, and the Irish were absolutely unscrupulous, as witness the fact that Mr. Redmond had refused to take part in the Coronation. Further, the Government did not represent the will of the People, or, if they did, why did the Government object to the Referendum? Finally, Consols had fallen, and his pocket had suffered in consequence.

Mr. Richards said he was sorry that the supporters of the Liberal Party had supported it as they had supported it. He, too, had more regard for Principle than detail. A reasonable chance for everyone, he took as the Liberal motto. To the Socialists he would give the reminder that reforms could not come suddenly. Nature did not do things suddenly, or when she did, as in the case of the earthquake, the results were disastrous. However, he considered everyone to be intellectually a Socialist.

Mr. Webb considered that the Government, however great its faults might be, was certainly succeeding in consolidating the Empire and its people. Home Rule all round and an Imperial Parliament at the head should be the ultimate aim. He hoped that the Government would long remain in power, provided that the limitations to its actions provided by the Irish and Labour Parties remained also.

Mr. Rook thought the wording too fantastic. He had come, he said, with an open mind, possessed only of the knowledge that he was not a Socialist—except, of course, intellectually. The rest of his speech was taken up with a rapid sketch of the speakers who had preceded him and the speeches they had made, so rapid, in fact, and productive of mirth, that the reporter failed in his task of recording it. He appeared, however, to have a certain admiration for a gentleman called Garvin.

Mr. Munden maintained that it was incorrect to state that a large portion of our food supply did not come from our Colonies. Most of our meat came from New Zealand and Australia. He thought that our Colonies were invaluable to us.

Mr. Andrews urged that it was not Principle, but Principal that governed. The City men were the men who had the greatest interest in the country and understood the country's needs. If credit at home was bad, it must be bad abroad.

Mr. Sandison and Mr. Godding then replied, and the Chairman having summed up, a division was taken. The motion was carried by 8 votes to 3, a few abstaining from voting. A vote of thanks to the Chairman was unanimously carried, and the House adjourned to coffee.

The next meeting of the Society will be held on Saturday, March 11th. Subject: "That this House considers our present penal system ineffectual and pernicious."

Appointments.

Civil.

Chapple, Harold, B.C. Cantab., F.R.C.S. Eng., has been appointed Clinical Assistant, Chelsea Hospital for Women.

Ernest B. Dowsett, M.R.C.S., L.R.C.P. Lond., L.D.S., has been appointed Assistant Dental Surgeon to Guy's Hospital.

Papers by Guy's Men.

Captain R. G. Anderson, R.A.M. Corps: Final Report of the Sûdan Sleeping Sickness Commission, 1908–9.—*Journal R.A.M.C.*, February, 1910.

Herbert S. French, M.A., M.D., F.R.C.P., Assistant Physician to Guy's Hospital: On the Differential Diagnosis in Cases of Albuminuria.—*British Medical Journal*, 25th February, 1911.

Chas. J. Morton, M.D. (Edin.): Surgical Radiographer to Guy's Hospital: Radium in Cancer.—*British Medical Journal*, 25th February, 1911.

T. G. Stevens, M.D., F.R.C.S., M.R.C.P., Gynæcologist to Hospital for Women and Children, Soho Square, Physician to Out-Patients, Queen Charlotte's Hospital: Some Common Gynæcological Affections.—*Clinical Journal*, 22nd February, 1911.

Periodicals Received.—The Hospital; The Clinical Journal; The Nursing Times; St. Mary's Hospital Gazette; University of Durham College of Medicine Gazette; New York State Journal of Medicine; St. Thomas's Hospital Gazette; The Polyclinic; The Prescriber; St. Bartholomew's Hospital Journal; St. George's Hospital Gazette; The M.S. Journal; Prince Alfred Hospital Gazette; London Hospital Gazette; The Manchester University Magazine; The Calcutta Medical Journal; South African Medical Record; Magazine of the London (R.F.H.) School of Medicine for Women; Charing Cross Hospital Gazette.

Some Cases of Acute Inflammation of the Gall-Bladder.

CLINICAL LECTURE BY CHARTERS J. SYMONDS, M.S.

Gentlemen,—I propose to ask your attention to some cases of acute inflammation of the gall-bladder, or acute cholecystitis. I will take as the text of my remarks the patient from whom this unusually large gall-bladder was removed, as affording a good example of the history of such cases.

A lady, aged 43, who never had been ill in her life before, was seized on the night of Tuesday, November 8th last, with acute abdominal pain, vomiting, and diarrhœa, three cardinal symptoms marking the onset of acute abdominal disease, and these symptoms continued during the whole of that night. The diarrhœa ceased after twelve hours, but the vomiting and pain lasted throughout the next day. On Wednesday morning she took some bismuth, but no examination of the abdomen was made. Her pulse was 70, but there is no record of the temperature. On Thursday the pain had abated somewhat; the temperature then was 102°, and the pulse 92. She had been able to take some milk and arrowroot during the day. On the following day, Friday, she still had pain; the temperature was 102·5°, and the pulse 108. At 4.30 on Friday afternoon the patient was seen by Dr. Frederick Taylor, and for the first time a careful examination was made. The temperature was then 103°, pulse 110, abdomen very painful. There was a tumour to be felt on the right side, extending upwards to the liver and down to the anterior superior spine. Looking upon the case as one of urgency, Dr. Taylor had the patient moved into a home, and I was asked to see her with a view to operation. The condition at 7 p.m. was practically the same as at 4.30, so one description will suffice. The temperature was 102°, the pulse, under 100, was very good, quiet and steady. So you will notice the contrast between the proportions of these two symptoms. The tongue was quite clean, the breath was neither hot nor unpleasant, the lips were not dry, nor were they scaling, the face looked free from anxiety and was not flushed. She talked brightly, without evidence of any pain, and she was not restless. I dwell somewhat at length upon the absence of these symptoms, as in my first lecture upon a case of appendicitis I pointed out that

in the presence of a normal temperature and pulse the general symptoms indicated toxic poisoning. The symptoms were exactly the converse of those which this patient presented, viz., a dirty tongue, hot unpleasant breath, dry and scaly lips, a flushed face, and marked restlessness. The absence of these symptoms at the end of the third day was opposed to the idea of any toxic infection. The abdomen itself was, for the most part, quite easily handled and soft, and it was also free from distension. But on the right side there was an unusually large swelling. It came down rather below the anterior superior spine, its lower margin could be well defined, it was of considerable breadth, and upwards merged into the dulness of the liver. It was a little too tender to admit of free palpation. It differed from an appendicular abscess in being nearer the abdominal wall, and being for a swelling of three days' duration, larger, harder, and more defined. Then, too, an appendicular swelling of such size would invariably cause toxic symptoms, and these were, as I have said, absent. There had been no previous attack of abdominal pain, and there was no history of jaundice. The onset was, you will agree, like that of appendicitis, and especially in view of the acute diarrhœa, a frequent symptom of the early stage of appendicitis, but I am not so well acquainted with it as an evidence of acute inflammation of the gall-bladder; but you know that any sudden disturbance of the abdominal cavity is liable to be followed by brisk peristaltic action. The situation of the pain was higher than is usually seen in appendicitis, though where the appendix is situated over the kidney or close to the liver the pain is high up in the abdominal cavity, and, on the other hand, the pain due to gall-stones may be felt only in the groin. The tumour itself had a very broad lower margin, and it was unlimited above; what it was extending into, unless it was the liver, it was difficult to say. It was much less tender than the ordinary appendicular abscess, and I think the most important symptom of all against appendicitis was the absence of the toxæmia.

On that night we concluded she was in no particular danger, because of the absence of toxæmia, that her symptoms were mending, and that she might be safely left. The night of Friday was passed very comfortably, and on Saturday morning she was distinctly better all round, temperature and pulse were down, and on this particular morning the tumour was more suggestive of an enlarged gall-bladder than a swelling due to appendicitis. The sign which would have settled the question was mobility. The appendicular swelling is not mobile, but, as a rule, the gall-bladder is easily movable, especially in the absence of pain. But there was too much tenderness for us to elicit this final symptom. So we left the case for that day, Saturday, and as there was other busy work to be done, it was decided that we should devote Sunday morning to this particular operation. When Sunday morning arrived she was very much better, temperature only 99°, and pulse 90; but we operated because the swelling did not disappear.

The moment the patient was under the anæsthetic we got mobility of the tumour, which practically settled the question of its being gall-bladder. When the abdominal muscles were relaxed we were able to move it towards the other side. When the rectus was split and the abdomen opened, out came an enormous gall-bladder, and I have it here to show you. It is of unusual length, and you will notice the extent of the non-peritoneal surface, reaching to within two inches of the extremity. It came out through the wound, carrying with it the lobe of the liver. To the under surface, which was very red and deeply congested, the transverse colon and great omentum were lightly adherent. These were easily separated, showing the absence of a previous attack and of old adhesions. In a few minutes the gall-bladder was removed, the duct and vessels being enclosed by a single ligature, and a drain inserted. The subsequent history of the case was that of a primary union; the temperature never rose again, the pulse was not rapid, there was no abdominal trouble, and she made a very rapid recovery. The drain employed was that which I have described to you before—rubber covered with ribbon gauze. The rubber was withdrawn in 48 hours, and the gauze at the end of the fourth day. We never had any leakage of bile from the case, though you will notice that the duct was simply tied, and not covered over with peritoneum.

On opening the gall-bladder after removal it was found to be full of stones. The greater number are of the usual kind, facetted, and varying in colour. The largest is different from all the others in being rounded and roughened, as if covered by a bark, and the facets at either end are circular and have not been in contact with other calculi for a long time. The lower end of the gall-bladder bulges below a distinct constriction, and in this sac lay this particular calculus. The gall-bladder contained also a good deal of mucus, but only a little pus. The

hepatic surface of the gall-bladder, when fresh, was green and soft from spreading gangrene, a condition still to be seen in the specimen.

In contrast with this state, accompanying a similar process in the appendix, you will recollect that the general condition of the patient was steadily mending.

You will notice, first of all, the absence of a history of hepatic colic. The large stone effectually prevented the descent of the smaller calculi, and yet the facets clearly indicate that at one time it was in contact with its neighbours. It is no uncommon thing to find gall-stones in making autopsies on subjects where there is no history of colic. Again, it is well known that a solitary gall-stone may be unattended with symptoms previous to some grave complication arising. For instance, it is so in intestinal obstruction due to gall-stones. Here is a gall-stone, as big as an egg, which obstructed the small intestine at the ileo-cæcal valve, although this patient had never had symptoms of gall-stones at all. The only way in which such a gall-stone could have reached the ileum was by ulcerating into the duodenum, and yet there was nothing in the patient's history indicating that such a process had taken place. We learn that the gall-bladder can harbour stones for many years without causing symptoms, that a large ulcer may form in its wall and communicate with the intestine, and yet there may be no symptoms whatever of abdominal distress. Too much weight must not be given to the absence of a history of biliary colic in arriving at a diagnosis.

The acute onset is the next point I must refer to. What determines the acute onset in these cases, and to what was it due in this particular case? You may say the pain, in the first instance, was due to gall-stones becoming impacted in the cystic duct; but, as I have shown you, that could not take place, because this large stone occupied the lower part of the sac, and closed the exit. Again, the acute onset in many cases of appendicitis is not due to anything blocking the canal; there must be some other reason for the pain. The probability is that pain is experienced at that moment when the acute process reaches the peritoneum, and especially when it reaches the parietal peritoneum, and I think that was what determined the acute onset in this instance.

The absence of toxæmia I have already dwelt upon. The absence of signs of septic poisoning in acute cholecystitis, even with gangrene, is very striking, and separates the affection distinctly from acute appendicitis.

There was practically no pus. The contents of the gall-bladder in these cases being, as a rule, sterile, explains the absence of septic absorption. I removed a gall-bladder, not very long ago, from a patient who had had acute cholecystitis. She was walking about, and had no pain or symptoms of any kind, yet the gall-bladder was full of pus, and contained also one calculus. The gall-bladder may, you see, contain pus, and yet there may be no toxæmia and no symptoms to indicate its presence.

Here is a gall-bladder which was removed from a man æt. 70. He was taken suddenly ill on February 27th, last year, with such acute abdominal pain that he was collapsed. The next day he was vomiting, and had been vomiting since the onset. The temperature was 103; the abdomen distended and rigid. On the third day of his illness, when I first saw him, he was in the same condition; but there was no toxæmia, though there was much pain and he was still vomiting. On the next day vomiting was relieved by a dose of morphia. Next day he was operated upon. On opening the abdomen there came out some thin fluid, and on working further there came out a large quantity of fluid, which smelt like stomach contents, which had been there a long time, and I thought there must be a perforating gastric ulcer. But on working down a little further, I found, and removed, the gall-bladder. The wall shows still the yellow patches of gangrene and the aperture where the perforation took place. There were no calculi in the gall-bladder, a circumstance which I take to be very unusual. Acute cholecystitis had determined gangrene of the gall-bladder, perforation ensued and gave rise to a considerable collection of fluid. When handling this gall-bladder in order to remove it the duct and vessels tore through. The rush of blood for the moment was alarming, and the depth of the wound being considerable—it is always more deep in a man than in a woman—some difficulty was experienced in securing the vessels. They were grasped by forceps, and two pairs were left on. They were removed on the fourth day, and the patient made an uninterrupted recovery. I mention it in connection with this case to show you that there may be a gangrenous gall-bladder without any stones; again, that there may be a considerable amount of septic fluid in and about the gall-bladder without any septic absorption, a condition which you would not see in perforating gastric ulcer or in perforation of the appendix.

To show you still further how comparatively harmless these inflamed gall-bladders are, let me

refer to another case, that of a lady who was seized with all the acute symptoms I have mentioned. The case occurred before the days when gall-bladders were removed as freely as they are now. The gall-bladder was black and soft with gangrene, so that it tore readily, and I should have found it somewhat difficult to remove. The stones and septic material and pus were removed from it, and a fair-sized drain was put in, and no septic trouble followed. She did very well indeed, and has remained free from trouble for some years. The case further illustrates the fact that there may be gangrene of the gall-bladder without toxæmia, and that such a gall-bladder may be left behind with safety. It is necessary to insist upon that, because there are those who say that there is as much necessity to remove a gangrenous gall-bladder as to remove a gangrenous appendix. But the two things are entirely different. A gangrenous appendix will cause trouble as long as it remains, but, as you see, it is not so with a gall-bladder. It is, of course, wiser to remove it, if other things are favourable, but remember that there is more shock from a longer operation, and there may be serious bleeding. It is satisfactory to know that removal is not essential, even when the gall-bladder is gangrenous, so long as good drainage is provided.

The cases I have mentioned are two or three from among many of acute cholecystitis.

Now what would happen to these cases if they had been left alone? In most cases of acute cholecystitis the symptoms subside, and the patient recovers. What exactly happens in the wall of course we do not know. There may have been a limited gangrene, which becomes absorbed. I think that must be true, because now we operate upon these cases and find the pathological conditions, and there must have been similar conditions before operation was done, and yet they got well. In many cases the patient recovers from milder attacks and there is left a thickened gall-bladder, such as I show you here. In others a fatal termination ensues, and would probably have occurred in the case of the man of 70. As a rule, however, some days elapse, and we have more time than in acute appendicitis. Note particularly that there is no jaundice in these cases. When this symptom exists the danger to life is very great indeed, for it indicates a septic infection of the bile ducts.

We might classify these cases of acute cholecystitis into, first, those which are very acute indeed, like the case which formed the text of my remarks to-day. Secondly, we have the case of the still acute but much milder type, with a lower temperature, which gets well. For example, such was the case of the lady I mentioned, whose gall-bladder was full of pus. She had several short attacks of cholecystitis.

The next cases are the subacute. Sometimes these cases are very interesting because of the total absence of pain. I was asked to see a man of about 40 years of age who for three weeks had had a mild hectic temperature, the cause of which could not be discovered by the careful physician who was looking after him. At the end of the third week he noticed some tenderness about his liver. In a day or two what was obviously the gall-bladder presented itself, and I was asked to see him. I opened the abdomen and found the gall-bladder inflamed and thickened; it contained some mucus and serum, and many gall-stones. The gall-bladder was drained, he recovered quickly, and I know he remained well for eight or nine years. In an unexplained case of pyrexia we must think of inflammation of the gall-bladder as a possible cause. Though it may be best to remove a gall-bladder, it is not essential, and one has done one's duty to the patient by relieving the immediate danger and by draining.

The next variety of inflammation of the gall-bladder which I will note is that where the disease is associated with a local ulceration. The gall-bladder becomes adherent to the transverse colon or to the duodenum, and then a gall-stone ulcerates through into one or other portion of intestine. During that time there may be no symptoms of this large ulcer having existed. In some cases in which this ulceration is taking place a distinct abdominal tumour will be felt, perhaps as large as one's fist, which is remarkably movable. The tumour is high up and not very painful, and you will be able to swing the tumour over to the left of the middle line. You can press it down 1½ inches, and you can send it back into the loin. A tumour which can be moved in that way is generally an enlarged gall-bladder, though it feels too large and of the wrong shape for it. It seems too square. The shape and size are due to the adhesion of the pylorus and the great omentum and the transverse colon. Some years ago I operated on two such cases. In one of them I felt sure it was malignant, and to make positive I invaginated the transverse colon towards the gall-bladder, and there I found a large sausage-shaped ulcer, with overhanging edges, typical of epithelioma ulcerating into the gall-bladder. We left it so, and sent her away to die. I wrote to the doctor

and told him that we thought she had not long to live, and that he had better make her as comfortable as possible, and suggested opium. He wisely gave her one-grain opium pills, one of which she took each night. At the end of a year she was much better, and a little later the whole tumour had disappeared. It was claimed that the opium pills cured a case of cancer. Of course this was not so, for the tumour was caused by one of these big stones ulcerating through into the transverse colon. An exactly similar case occurred to me the following year, the patient being under Dr. Newton Pitt, in Clinical ward. We operated, and thought there was malignant disease. That patient also got well. The first case died only last year, some ten years after she was in hospital.

Guy's Hospital Christian Union.

The second monthly meeting of the session was held in the Medical School Committee Room at 5 o'clock on Thursday, February 23rd. A paper on "The place of Medical Missions in the Evangelization of the World" was read by Mr. J. A. Martin. Three of the subjects discussed at the World Missionary Conference held in Edinburgh were brought before us, and by quoting from the experiences of medical men and others, who are at the present time engaged in missionary work, the importance of medical work with regard to each was clearly shown.

Firstly.—"Carrying the Gospel to all the World." Five arguments for medical missions based upon the personal experiences of Dr. Pennell, M.D., F.R.C.S., on the north-west frontier of India, were taken from a speech he made at Queen's Hall last year.

1. Medical missions have not only the sanction of our Lord Jesus Christ, but are actually founded on his own practice of going about doing good and healing the sick.

2. Medical missions are the laboratories of practical missionary effort.

3. Medical missions appeal to men at times when they are most ready to view Christianity dispassionately and without bias.

4. The influence of medical missions penetrates where missionaries cannot go.

5. Medical Missions are their own advocate, in that they have everywhere proved themselves an immense success.

Secondly.—"Education in relation to the Christianisation of National Life."

It is generally recognised by missionary experts that missionary work in China must in future years be carried on by the Chinese themselves. And it is of the greatest importance that at the present time, when the Chinese Government is crying out for more men who have had western medical training, that more thoroughly equipped medical schools should be established, and that as many natives as possible should be trained for the various branches of medical missionary work. Dr. Duncan Main, in an article on "Medical Education in China," says, "To do this work well there must be a large staff of able and efficient professors, thoroughly qualified, not only as doctors experienced in practice, but as teachers skilled in teaching; young men physically fit, of first-class ability, and true Christian character; men who, in teaching medicine will teach also the Christian faith by word and deed; men who will teach their students that the standard of ethics in the medical profession is high; who will try to guard them against the love of money, and the temptations of questionable and immoral practice. Men who will teach them to appreciate the sacredness with which Christianity has invested human life, and show them that true Christian civilization looks after the body as well as the soul. With such teaching, from these colleges, will go forth men and women in whose hands will lie the education of the rising generation, which will be the China of to-morrow."

Thirdly.—"The Preparation of the Medical Missionary." It is clearly recognised that no one who has not obtained a diploma or degree in medicine from a recognised examining body should assume the title of medical missionary. And that every medical missionary should, before proceeding to the foreign field, have held (where possible) a resident post at a recognised hospital. The preparation for the missionary part of the work is as important as that for the medical. The salvation of the individual, and through it the nation, cannot be accomplished through man and western learning and medical science. Human agencies, however good and valuable, cannot change the heart. Those who go out to foreign lands as medical missionaries must receive the missionary spirit which seeks not only to heal the bodies, but also the souls of those around them.

Doctors will seldom come forward to undertake medical missionary work, when once they have got into the rush of busy professional life. To obtain medical missionaries we must secure them when they are students, and medical students are not likely to come forward in any number unless as students they can be shown that the medical missionary career is the highest ideal that can be put before any man for his life's work, and that they must prepare themselves through their student days in order that they may follow out that work.

The meeting was thrown open to discussion, which centred round the best way of getting men interested in what was being done by medical missionaries. Among other ways discussed were the formation of missionary study bands, and reading the biographies of medical missionaries.

The next monthly meeting will be held in the Medical School Committee Room at 5 p.m., Thursday, March 16th, when the Rev. W. Goudie will speak on "Medical Missions in India from the point of view of an onlooker."

A. G. SIMMINS,
Hon. Secretary.

Epilepsy in Children:

A Review of One Hundred Cases.

By Dr. H. C. MANN.

These notes have been made from time to time during the past five years among the children in the Out-Patient Department at the Evelina Hospital. Fifteen of them had previously been under the care of Dr. Whipham, and ten others have occasionally attended Dr. Forsyth or Dr. May. To these, my colleagues, I am much indebted for the use of the reports concerned.

A casual visitor to the Out-Patient Department of any Children's Hospital will be struck by the high percentage of epileptic cases among the attendances, but this is explained by the extreme regularity of their visits, and is a proof that the parent recognises results for treatment, although a complete cessation of attacks is only found in a minority of cases. Quite fifty of these children are in constant attendance, some of them I have watched continuously for five years, and in the development or non-development of their character, their likes and dislikes, their habits and eccentricities, their exaggerated "moodiness," tender affection, savage hatred and oriental cunning, they form a most interesting psycho-physiological study.

In writing of "epilepsy," I am not considering those forms of convulsive attack which are due to injury or organic disease of the brain, nor am I including the convulsions of infancy, except when periodic recurrence of attacks continues after the third birthday; my definition concerns a chronic disease of the brain characterised by the recurrence of attacks in which loss of consciousness is the essential element.

I have thought it well to consider the various epileptic phenomena of childhood under the following headings:—

A. Predisposing and exciting causes.
B. Types of epileptic attack.
C. Types of epileptic children.
D. Treatment and its results in after life.
E. Some problems which concern the well-being of the State.

A. Predisposing and Exciting Causes.

1. *Predisposing Causes.*—In spite of the difficulty of obtaining a reliable family history as regards mental trouble from out-patient relatives, the important part which heredity plays in the ætiology of the disease is at once apparent. My series of cases numbers 103, and when I have allowed for 10 of these, in connection with which the family history was unknown, then I find epilepsy present in the relatives in 20 families and insanity present in 6 families. It is important to remember that among these relatives there are included 10 parents, 8 grandparents, 6 uncles or aunts, and 4 brothers or sisters. There is unfortunately no doubt, however, that even these figures are lower than the average incidence of epileptic or mental relationship. Dr. Edgar Faulks and Dr. George Evans, who are Senior Medical Officers at the Heath Asylum, Bexley, have very kindly given me further information. They tell me that family histories of insanity or epilepsy are acknowledged among epileptic admissions to about an equal degree, namely, in about 22 per cent., a total of 39 per cent. when allowing for those instances in which these two forms of faulty heredity were mutually associated.

Ancestral alcoholism seems to be a relatively minor factor compared with parental mental trouble, but I have knowledge of long-standing alcoholic excess in the case of five families (seven parents) prior to the birth of the child concerned. In two of these instances I am practically certain that the alcoholic habit has arisen on account of "petit mal," though I have never actually seen the relatives in an attack. The figures which I have obtained from Bexley Asylum give parental alcoholism in 7 per cent., but Dr. Evans points out that this co-exists in some cases with insanity.

Reverting to my own figures, I have still to find some ætiological factor in 62 out of 103 cases. My inquiries were directed towards the possible discovery of any particular family characteristic, and a good deal of evidence was forthcoming that the families were, on the whole, of a degenerate type with a neuropathic tendency. Indications of this fact were observed both in the children themselves and in their parents. No less than 26 of the children in my series had from their earliest days shown signs of mental deficiency, backwardness or lethargy, and of the parents, 20 families showed evidence of a neurotic strain. Thus, I have described 7 of the relatives as neurotic or hysterical, 2 were suffering from asthma, convulsive tic was mentioned in the families of 2, habit spasm occurred in 3, and stammering in the case of 6 others. These "family failings" occur in the histories of 40 epileptics, and last of all I have 22 children who came of apparently healthy stock, who gave no history suggestive of any exciting stimulus for their first attacks, and who, in the majority of cases, were themselves bright, healthy-looking, intelligent and well-developed.

The age of onset.—All observers are agreed that epilepsy is a disease which finds its most suitable soil during childhood or adolescence, fully 80 per cent. of the cases starting before the twentieth year. It is a disorder characterised by nerve-storms of greater or lesser severity, and so it seems but natural that the first three or four years of life, which is a time especially liable to spasms and convulsive seizures indicative of mental instability, should furnish a large proportion of the cases. In the second five years of life, the child exhibits far more evidence of control. The movements and actions of everyday life are not

merely purposeful, they are tempered by judgment, and in appreciating more fully the relationship between himself and his environment, sudden changes are less likely to disturb his mental balance. Towards the end of childhood, the onset of puberty marks another danger period for those whose general development is tainted with an epileptic heredity. Sir William Powers is of opinion that half the cases start in the second decade, and no less than a quarter during the four years 13, 14, 15 and 16. The table at the end of this paper, which gives in detail the age of onset for my cases, refers to children up to and including their fourteenth year, so that my figures for this particular time of life would be lower than those embracing the whole period, but I find an overwhelming number starting during the first four years of life, and I have obtained a similar high percentage for the early years from the Epileptic Colony at Ewell, Surrey, where Dr. M. A. Collins is superintendent. The figures which he gives me show that the epileptic attacks started under the age of 5 in 66 cases, between the ages of 5 and 10 in 23 cases, and between 10 and 14 in 27 cases. Between 15 and 19, on the other hand, there were but 20 cases, and after this age, as it was mentioned above, first fits are rare. Asylum figures, therefore, make first attacks twice as numerous in the first decade as in the second, and the years of infancy the most common age of onset.

Consanguinity of parents does not occur in my series, and in any case such marriages are far too uncommon to furnish any reliable data on the subject.

2. *Exciting Causes.*—Among adults the influence of menstruation upon epileptic attacks is well known. Seizures occur usually just before the period, and in well-established chronic epilepsy the fits are often increased in frequency. Two of the children in my list, aged 13, had first attacks of epilepsy with the onset of menstruation, and in five others infrequent seizures became more common besides being increased in severity. In spite of these facts, in a great many cases menstruation has not affected the disease at all, and would seem to be of minor importance when it is remembered that during the years of infancy most attacks begin. Convulsive seizures during these early years are excited by trifling reflex disturbances, more often by delayed or irregular dentition and gastro-intestinal colic than by other local trouble, but among those who have an inherited neuropathic disposition it would seem as if these seizures, unimportant in other children, had so damaged the brain that in after days there is a recurrent tendency to spontaneous discharges of nervous energy. Among older children the detonating element may be psychical, nothing more than emotional excitement, or it may possibly be toxic, as is seen in the recurrence of epileptic seizures with the onset, or during the progress of some specific infective disease, or again, possibly local troubles such as adenoids, nasal polypi, refractive errors, or tinnitus from middle-ear trouble; these, like the disturbances of infant days, may suffice to upset equilibrium in a brain which is, by heredity, unstable.

The question of injury to the head being the cause of first attacks of epilepsy is constantly suggested by the parents. I have in my series two examples where a blow, not a fall, apparently started the trouble, that is to say, there was no possibility of the injury being due to a fall during a first epileptic seizure. I mentioned these two cases to Dr. Collins, and he tells me of two similar cases in children which he specially investigated, finding in both cases a very bad alcoholic parentage, with other stigmata of degeneration among the children. He is inclined to think that, apart from a neuropathic diathesis, injury is of minor importance as a cause of idiopathic epilepsy.

B. Types of Epileptic Attack.

The division of epileptic fits into two large groups —"grand mal" and "petit mal"—gives no idea of the various manifestations of the disease. Among children one has the great advantage of studying the disorder in a pure type, for as the child grows up, not only do various functional disturbances mask the symptoms so that the diagnosis between epilepsy and hysteria is often one of extreme difficulty, but a gradual and progressive dementia completely changes the patient, insanity becomes grafted upon epilepsy, often to such an alarming degree that the asylum, and not the "colony," becomes the only proper dwelling place.

It must be remembered, first of all, that epilepsy presents two aspects for our consideration: there is a psychical side and a convulsive side. In some cases the symptoms exhibited by the patient are chiefly *mental,* if not entirely so, while in others, the *motor* phenomena are more prominent, and to the patient's relatives the latter are alone a cause of anxiety. There is, however, no doubt that the psychical element is of the more importance. While the child is liable to the attacks, he shows a progressive degeneration in character, a change in temperament which varies in degree directly with the frequency of the seizures. Of these changes I shall speak in my next paragraph, under the heading of Types of Epileptic Children.

Arranging my notes, and adding confirmatory evidence from the reports of over fifty epileptics in the Colony at Ewell, whose trouble dates from infancy or childhood, I find the following varieties of attack constantly recurring among my out-patients, some children always exhibiting the same form of seizure, others having each variety in turn.

1. *First Type.* Psychical (pure).—This variety of attack is of an average duration of three to ten seconds. There are no motor phenomena at all, no cry is made, the limbs are limp, in some cases so that the child sinks for a moment into its mother's arms, or, on the other hand, may remain sitting or standing without movement. The face becomes pale always;

it may become flushed afterwards. Whenever I have tested the knee-jerks, and I have done so not a little, I have found them to be brisk, though it should be remembered that in many epileptics the knee-jerks are always brisk. It can be readily understood that such attacks are very often unnoticed by the parent until attention is directed to them. I fancy that if they last longer than ten seconds, other phenomena follow which I shall mention in another type. It is an interesting fact that the child is not always completely unconscious, so that I am obliged to make two subdivisions: (*a*) unconscious, (*b*) subconscious, though the latter is much rarer. My best example of this subconscious type occurs in a girl aged eleven. The attacks have been noticed since the age of four. She was at one time having six attacks a day, and is a healthy-looking and well-developed child with no epileptic or mental heredity. She never passed urine during an attack. On more than one occasion she has subsequently answered a question that has been put to her during the seizure, or has told me afterwards of a remark which I had made to the mother, though unable at the time to make any movement at all. The child never knows when the attacks are coming on. Both Dr. Collins and Dr. Evans have seen similar subconscious psychical attacks. Immediately after the attack most children are a little confused, tending to be frightened, if anything, but the child above mentioned is a little excited for a few seconds.

2. *Second Type.* Psychical with local motor phenomenon.—In this variety the stage of unconsciousness is usually rather longer, perhaps 5 seconds to 30 seconds. My friends at the asylums tell me that subconsciousness may also be observed in this type of case. The movements observed may be prior to the seizure; they may occur during the time of unconsciousness or after the attack. They may consist of twitching or rhythmic movements of any group of muscles or of a single muscle. One of my out-patients, a boy aged 5, nods his head vigorously several times, then becomes pale for about ten seconds, and in the "post convulsive" stage says, "Yes, yes, yes," four or five times; apart from this his muscular movements never become generalised, though his post-convulsive confusion is considerable. He always passes water. Another, a girl, aged 6, as a post-convulsive phenomenon, brushes the front of her frock vigorously with her left hand, and in the recovery stage usually cries, or may repeat, "I did, I did," several times. She may or may not pass water. It is in connection with this variety of case that one meets the purest type of motor or sensory "aura." By this I mean that the mental confusion after the attack is so slight that the patient can remember how the attack began, and can describe it accurately. When the seizure, on the other hand, is severe, as in the so-called grand mal, the post-convulsive confusion is so great that all memory is lost for any events which preceded the occurrence of the fit; thus the "aura" is not described. To the subject of the "aura" I shall return later.

I referred above to movements made during the time of unconsciousness. These are of considerable interest. They are usually automatic movements which are thought to replace the seizures of major epilepsy, and they have on this account been called "epileptic equivalents." Sometimes they are purely psychical in type and associated with visual or auditory hallucinations, or the child may suddenly, by a few explosive utterances of terror or excitement, describe the vision to the astonishment of those around her. Such a child I showed last November at a Physical Society Meeting. This child, in broad daylight, will first turn faint and then, while pale and limp, will scream, "The man! The man! Hold me!" Then there follow a few seconds of stupor and a recovery without recollection of her fright. She has since that date developed a major seizure. The head night attendant at Bexley Asylum tells me of a boy whose psychical equivalent was the vision of a dog, to which he pointed in terror, calling out, "Dog! Dog!" It is interesting to note that later in life this hallucination formed the "aura" to major attacks of epilepsy.

The automatic movements observed in this variety of minor epilepsy are usually connected with actions of everyday life, such as undressing or micturition. The story of the judge of the County Court is so well known that it does not bear repetition.

3. *Third Type.* Major epilepsy.—In this form of the disease both psychical and convulsive elements of the attack are present. To the initial unconsciousness succeed first tonic and then clonic contractions of muscles, and when these latter have ceased, there follows a longer or shorter period of confusion, drowsiness or coma. The fit starts nearly always on one side of the body, often in a particular group of muscles, and though the contractions may remain localised to this particular group, more usually generalised convulsions occur. Even then the contractions are usually stronger on one side of the body than the other, that side upon which the movements begin being most affected. It is this tendency for the fit to start always from the same muscular group which so often decides the type of fall to which the epileptic is liable, should he be unfortunate enough to have no "aura." I have a boy of ten who always cuts himself over his right eye; Dr. Collins tells me of a boy who has his chin stitched up with great regularity after his attacks; and Guy's men who were dressing in the Surgery between 1901 and 1904 would remember the epileptic girl, who always started by dislocating her jaw—at least once a week.

This is the type of epilepsy for which most children are brought to hospital, because it is alarming. The majority of my cases are, therefore, of this variety, combined with psychical attacks, and though the mere fact that major seizures are taking place does not, in

itself, indicate a bad prognosis, yet among out-patients this form of epilepsy has often followed upon years of minor psychical phenomena, so that the disease has got a firm hold of the patient. Out of 103 cases there are 54 of major and minor epilepsy combined, 22 children have apparently only major attacks, and 27 are, so far, subject only to the minor psychical variety.

4. *Fourth Type.* "Status epilepticus."—This is an extremely rare type of major epilepsy, in which convulsive seizures follow one another without any recovery of consciousness; the temperature rises rapidly, and there may be hyperpyrexia. A female child, aged 3, who had been liable to fits every week from birth in spite of treatment with the usual remedies, began to have attacks much more frequently, to the extent of 20 or 30 in twenty-four hours. The circulation of the child was poor, and as respiration was laboured, with a rapid heart's action, she was admitted to the ward. Saturation with bromides produced no effect upon the attacks, and she shortly afterwards began to have eight or ten fits an hour without recovering consciousness, dying in this condition.

Other features in connection with epileptic attacks. The "aura" and the pre-convulsive mental state.—The great majority of epileptic attacks start without any immediate warning before the seizure. The statement that an "aura" is present in about half the cases has no foundation in fact. Among my out-patients fully 80 per cent. of children whose memory after the fit is good for events happening immediately before the fit, can yet describe no sensations giving them immediate warning. Furthermore, the parents of these same children have never observed any constant guide to an impending attack, either in the appearance of the children or by reason of any special movements.

My friends at Bexley Asylum are also in agreement about the rarity of an epileptic "aura." At the Epileptic Colony I was shown the reports for the last 66 admissions, and in only 11 cases was an "aura" present.

On the other hand, in quite 60 per cent. of children there is a marked alteration in the pre-convulsive mental state. This is observed by the parent sometimes for three or four days before the attack occurs. I have made notes of: Restlessness, Irritability, Spitefulness, Excitability, and Drowsiness, as occurring in different children, and of these I should say that the first is the commonest.

With regard to "aura," I have notes of: Headache, Epigastric pain and Nausea, Giddiness, Visual hallucinations—two cases, one of which I have mentioned above, and pain in the arm in one case. The first two symptoms are the commonest.

Dr. George Evans has made out a list for me of the different types of "aura" which he has noticed during the last seven years at Bexley, and I give them here in order of frequency, the first being the commonest: (1) Headache. (2) The patient feels "seedy" without definite symptoms. (3) Restless type, mentally, unable to carry on conversation or read a paper. (4) Visual, various, mostly in the form of bright lights, in some cases the same scene occurs every time. (5) A sinking sensation in the abdomen. (6) Giddiness. (7) Peripheral pain. In one case this always started with twitching in the right hand; from this point it spread to the forearm and arm, and when the movements reached the shoulder muscles, the man became unconscious. The night attendant told me that sometimes if the patient gripped the forearm above the wrist he could prevent the attack becoming generalised, and he did not become unconscious. On account of the very definite nature of this aura, the patient never had a fall. (8) Trembling, for an hour before the attack. In this case also the patient has had no fall. (9) Vesical crisis, starting the attack as a pre-convulsive phenomenon. (10) The patient begins to stamp violently upon the ground with one or both feet, ending with a major attack. (11) An auditory aura; rivets are hammered into the head. (12) Mixed type, in which a visual aura is combined with a mental change, terror or excitement, an example of this being the man quoted above, who always saw a mad dog.

Apart from the question of aura, there is very often mental change noticed for a few days prior to the fit. Both at the Epileptic Colony and at Bexley, young and old among the epileptics do a good deal of work as ward helpers, but the attendants very commonly know when a fit is pending, because the patient becomes unable or unwilling to do his work, and is liable to be moody or quarrelsome.

From time to time a fit occurs in the out-patient waiting room, and I have notes of 12 of these, affecting 8 children. On one occasion, immediately after the attack, knee-jerks were absent, cutaneous reflexes were absent, the latter returning within half an hour with increased knee-jerks and a flexor plantar response. In all the others the knee-jerks were increased, ankle clonus was obtained three times, and an extensor plantar reflex four times. In the case of a boy aged three, under the care of Dr. May, a major attack occurred, and immediately after this the knee-jerks were found to be brisk, and there was an extensor plantar response; the cremasteric and abdominal reflexes were absent. In an hour and a half's time the plantar response was flexor, the knee-jerks were normal, and the other reflexes had returned.

The question of sensation in the post-epileptic state is interesting. Dr. Collins tells me that it is very commonly impaired; sometimes there is complete anæsthesia for a variable time after the fit. He quotes two cases where stitches are frequently required after falls, and the patients do not feel the needle.

C. Types of Epileptic Children.

When I described the features of an epileptic attack I spoke of the importance of the psychical element in the disease, and of the occurrence of "epileptic equivalents" instead of motor phenomena. There is another aspect to be considered, and that is the epileptic temperament. It is a very interesting fact that some children who are liable to severe epileptic convulsions are yet, in their inter-convulsive periods, to all appearances normal children, bright, active and intelligent; whilst others who never have more than what the parent calls "a turn"—children, I mean, who have never been known to fall—are really far more abnormal, and even at times dangerous to their brothers and sisters, growing up to be relatively less useful, and in some cases more insane. To this subject I shall return later.

1. *Backward Children.*—These are the best examples of a purely psychical epilepsy. They are very often sent up to hospital at the suggestion of the school teacher. Other children in the family are reported from school as being above the average, for it is characteristic of this epileptic heredity that it can produce a genius as well as an idiot among the offspring. The school report is very definite:—"This child is two years below her proper standard." At the same time, the parent describes happiness, affection and frivolity at home. There have never been fits, not even fainting attacks. I found three such children in a large higher grade school in Rotherhithe last year. Two of them came of epileptic parentage, but in the case of the third I was unable to obtain even a suggestion of neuropathic heredity from either father or mother, who both came to see me. The child was standing in front of me with a nightingale over her shoulders holding up her petticoats with her left hand. She was neither frightened nor shy, but as I stood wondering about her, the garments slipped through her fingers. I immediately put a question—she did not answer; but when I repeated it in ten seconds' time, she exhibited the mental confusion which is such a reliable and characteristic sign of the post-epileptic state. Subsequent school reports have confirmed the diagnosis, and shown the wisdom of an education on special lines.

2. *Mentally deficient Children.*—There are at the present time a hundred children who are mentally deficient attending my out-patient department. Seventeen of these are epileptics without any doubt, and their mental defect is due to repeated attacks of major epilepsy. Convulsions had been present since birth in six, they started in the first year in four, in the second year in three, and in the third year in two cases. The following case is characteristic. The interesting notes are by Mr. A. S. Roe, who was at the time my clinical assistant.

Annie S., aged 5½.—This child is the youngest of fourteen full-time children. The mother's age is 47. She has had thirteen pregnancies, including two twin pregnancies at full time and a miscarriage. Nine children are now alive, patient being the youngest. Five have died, namely, the children from both twin pregnancies and another child from "fits" shortly after birth. No history of hereditary epilepsy or insanity could be obtained from the mother, but she is of a very degenerate type. The child had her first fit shortly after birth, and she continued to have a great many fits until she was three years old. She was then free from fits for two and a half years, having a week ago a severe attack for which she was brought up to the hospital unconscious. The head circumference measures 18½ inches. She has only learnt to walk in the past year, and still walks very badly. She can only say one or two words, and these very indistinctly. She is dirty in her habits, never calling for nursing attention. She cannot feed herself. Sight and hearing are not obviously defective. The expression is fatuous, with an occasional unilateral grin. Tongue often protruding, dribbling. Since the last fit she has been irritable and strange in her behaviour. A later note says: During the last week twitching has been noticed on the left side. No major attacks, but several attacks of pallor. Sleep is restless.

3. *The Nervous Child.*—Nervousness is quite a common type of epileptic temperament. It may be seen with major convulsions, but more often than not it is associated with psychical attacks, having for an "aura" some visual hallucination, or the fright may be the sign of an epileptic equivalent, as in the two cases I have quoted in a previous paragraph. My own experience goes to show that if the fright occurs as a pre-convulsive phenomenon or as an epileptic equivalent, it is less likely to affect the temperament of the child than in the post-epileptic stage, for probably many of the visions of the first two stages of the epileptic attack are subsequently forgotten in the mental confusion which follows the seizure. I fancy that the nervous type of psychical epileptic is more usually the child who turns pale and silent, and who then in the state of post-mental confusion runs to his mother in terror. The following case is typical of this type of child. My clinical at that time was Mr. E. L. Elliott, to whom I am indebted for the careful notes which describe the boy so well.

George W., aged 2½, an only child.—In September, 1909, he had bronchitis, and following this attack the fits began, occurring about once a fortnight and continuing thus until he was brought up to out-patients in January, 1910. In type they are both major and minor, but the minor variety are more common. First of all the attacks only came on during sleep, the boy being very restless before the convulsion started, but at the present time (January, 1910) they are more common in the daytime. In the course of three months he has become a nervous very excitable child, terrified in the presence of anyone whom he does not

know and afraid of anything he has not seen before. He is a well-grown and well-nourished boy who has not been backward in either walking or talking. When a major attack occurs, the movements first affect the muscles of the eyes, head and mouth, and he subsequently remains unconscious for about an hour. There have been as many as five attacks in one day. When he has a minor attack he turns pale, he may fall, and usually he keeps on repeating one sentence to his mother (epileptic equivalent). Subsequently he is very terrified, and passes water after the attack.

When he first came into the room it was with the greatest difficulty that he could be brought anywhere near my table. His face was twitching with nervous excitement, he hid behind his mother and trembled all over while the chest was examined. As soon as his mother rose from her chair he bolted straight for the door, tumbling through the doorway in his anxiety to be first out of the room. Upon his fourth visit to the hospital he had a minor attack in the waiting-room, and this was followed by an attack of hystero-epileptoid type, the boy screaming with terror, hiding his face in his mother's shawl. He remained in this condition in a quiet inner room for about half an hour, but became subsequently quieter after the administration of some chloral and bromide. The minor attacks continued for four or five months, and since they ceased he has been much less nervous and at times quite friendly, though a new clinical assistant or a face in the room which he does not know is always regarded with the greatest suspicion. His age is now $3\frac{1}{2}$ years (February, 1911).

4. *The Excitable Epileptic.*—This may be an exceedingly dangerous type of child, though in less serious forms only talkative or precocious. The type is met with when major attacks alternate with psychical epilepsy, or, in the case of a child, with a psychical seizure and local motor phenomena. Many epileptics are highly-strung emotional individuals, but the temper attacks of small children and the maniacal outbursts, more especially characteristic of puberty and adolescence, almost all occur as post-epileptic phenomena following a psychical attack. I have more than once been told that the child is of an angelic disposition, affectionate and unselfish, but that without any warning to the parent he may become a devil incarnate. "There is no knowing what he may do, and we never know when he may do it." Here are some examples—

(*a*) Joseph T., aged 7 years.—Brought up to hospital, February, 1908. For the past four years the mother has had an idea that the child was defective. He has never had any actual convulsions, but is liable to attacks of pallor and faintness, sometimes falling to the ground, and the urine has occasionally been passed. In the past year he has set light to his room three times, and has twice attacked his sister with a knife. The assault was unprovoked. He has no idea of danger, and does not seem to feel pain. He talks plainly and sensibly to me, notices objects and incidents in the out-patient room. He is fairly well built, somewhat short for his age; head circumference $21\frac{1}{4}$ inches. He does at times complain of frontal headache, and may then be moody or drowsy. One day he brutally killed a cat. A later note, March, 1909, says: Age $8\frac{1}{2}$ years. He cannot spell the simplest words. He will carry money and bring correct change. He is often very affectionate, and at other times "will cry with the very least thing." He goes to bed at seven o'clock, and sleeps well. Occasional attacks of giddiness and pallor occur, and, if anything, are rather more frequent, though he has not recently had a fall.

(*b*) Charles W., aged 3 years.—First seen at Out-patients, October, 1906. (Notes by Dr. S. H. Bent.) "He has been liable to fits for eighteen months past. He does not fall down, but he turns pale, takes no notice if he is spoken to, clenches his hands, the pupils dilate, he stares and seems silly. Such seizures last sometimes as long as ten minutes. He is spiteful and bad tempered, throws things viciously at the other children, bites and scratches them. He is clean in his habits, cannot speak well, though in some ways he seems fairly intelligent. Head small, circumference 19 inches. Sight and hearing good. There is a suspicious look about his face." June, 1907: "He is becoming very dirty in his habits, and is still more irritable and much more bad tempered. The minor attacks continue at intervals of a week or so. He has had one major seizure." August, 1907: "There has been another major fit. He is becoming very daring and dangerous to others." After this he was sent away to an infirmary with an order from the relieving officer, and I did not hear of him again until January, 1909. His age was then $5\frac{1}{2}$ years. The attacks were less frequent; he was still of a very excitable disposition. "It is dangerous to leave him alone with the other children." In May, 1910, I heard by letter (his age being then 7), that education had been tried and abandoned in an elementary school and in a special school; finally, he had been sent down to Darenth Asylum for Imbecile Children. He is still liable to epileptic seizures, mostly of the psychical variety, with excitement in the post-convulsive stage. He does not appear to be making any progress mentally, apart from the fact that between the attacks he seems to be more obedient.

5. *The Moody and Lethargic Child.*—This is another example of the epileptic temperament. It is possible that this state may be the first signs of a progressive dementia, but in those few children whom I have watched there were no other phenomena either before or after the attacks, which occurred without any warning, and which were usually of the major variety.

Nellie N., aged $10\frac{1}{2}$ in March, 1909.—She had convulsions as a baby, but after this she developed quite normally, and was a bright, active child until a

major attack occurred without any warning, November 5th, 1908. When I first saw her, the seizures were taking place about once every fortnight, mostly psychical, with local convulsive movements of the face and arms, occasionally of the major variety. During the past two years the attacks have become gradually less frequent, and there are no major fits. She is a quiet, pale-faced, very affectionate child, and her dreamy eyes and slow movements correctly indicate her disposition. She is never passionate, fretful or irritable; she is quite happy with her mother, and does not seem to wish for other friends. She has occasionally seemed absent-minded, but there is no automatism. She is only taking a little bromide, and this at intervals.

6. *Transitory delusional states.*—These are the best examples of psychical epileptic equivalents. Various automatic movements may be performed during the space of a few seconds, and there is no further evidence of trouble. I have a child at out-patients, aged 6, who suddenly begins to talk to herself—sometimes sense and sometimes nonsense—to the astonishment of those who do not know her. I have referred above to other examples, such as the child who always brushes her frock with her left hand, and in the recovery stage says, "I did. I did." Dr. Collins tells me of a girl at the Colony who from a child has had visual "aura," in which everything appears to be twice its usual size. Then she will rise, open the door, leave the room, pass water, and return shortly afterwards—without any confusion—and apparently quite well, knowing where she is, and ready to join in conversation.

In school they are met with as children who are said "to go to sleep." I remember a boy at Dulwich who used "to go to sleep" and suddenly say weird things. Many a book has been thrown at him, and many times has the pointer come hard across his shoulders, but though he subsequently went into the Church, I cannot help thinking now that he was really a psychical epileptic. Is it not possible that we may all tend to be a little *epileptoid* when we are tired and in need of a holiday? That card which is led at Bridge by the expert when it is obviously the wrong one, even to the novice; that unexplained plunge on the Stock Exchange by the most experienced and most cautious of brokers; that *faut pas* in the drawing-room, never to be forgotten nor forgiven among women, from the most genial and charming of hostesses. *Nemo sapiens omnibus horis.*

7. *Nocturnal Epileptics.*—I place these children in a class by themselves, because I find that so often there is no other evidence of a neuropathic disposition. I am so often told that they are above the average at school, that they are quite the brightest and the happiest in a happy family, and were it not for the blood on the pillow, the restless night, the sore tongue, and the soiling of the bed, who is there bold enough to prophesy the cold and uninteresting future which comes but too often to spoil the life of the epileptic child?

The subject of sleep and its influence upon epileptic attacks is a very interesting one. If we imagine that epilepsy is a disease in which the dendrites of the cortical cells are in a hypersensitive condition for the receipt of afferent stimuli and the transmission of explosive discharges, it seems difficult to understand why the condition of sleep should increase such a tendency. Everyone agrees that the commonest time for the attacks to occur is during the first few hours of sleep, and Dr. William Turner in his able Morison Lectures upon Epilepsy, states that this corresponds with the *deepest* sleep and the *greatest* degree of cerebral anæmia. I am sure, however, that he is wrong in laying this down as an invariable rule. Personally, I sleep very lightly between eleven and one o'clock. I am most sound asleep between one and four o'clock in the morning, and I know of many others who sleep very lightly during their first two hours in bed. Dr. Collins tells me that he is soundest asleep in the morning, and easily awakened during the early part of the night, such an observation explaining the energy displayed by one of the College porters upon his round of calls. I rather think myself that the occurrence of fits in epileptic people during their first few hours of sleep is due to the fact that they are sleeping lightly, and that digestive disturbances provide the detonating element to the epileptic explosion. I always hear that the child is a restless sleeper, and I believe that it is in the process of "waking up" that the attack occurs.

8. *The Forgetful Child.*—This is another common characteristic of the epileptic temperament, and may be found with all varieties of seizure. As I have mentioned before, loss of memory is one form of post-convulsive confusion, and its occurrence explains the absence of "aura" when the presence of pre-convulsive symptoms has led us to expect one. I have put the forgetful child in a class by itself because the school report is so distinctive. As children they are bright and often very quick to learn, arithmetic even has no terrors for them, but they can manage neither homework nor examinations, so that to both parent and teacher they are somewhat of an educational paradox.

9. *The Cardiac Type.* Fainting Attacks—I do not myself think that there are many examples of this class among children, but in view of the occurrence of epileptiform fits much later in life, of an undoubtedly cardiac type, they may well be studied separately.

The immediate cause of the seizures in Stokes-Adams' disease would seem to be a sudden fall in blood pressure secondary to a syncopal attack, but it must be remembered that the myocardial degeneration which is found at the autopsy co-exists in the majority of cases with extensive arteriosclerosis, and to this latter

pathological factor, alienists of to-day are attaching increasing importance as a causative element in all forms of insanity. Dr. Pitt has recently told me of a man aged 47, who was admitted under his care in a condition of status epilepticus, and who died in the strong-room shortly afterwards. At the autopsy, performed by Dr. Fawcett, mitral stenosis and aortic regurgitation were found, the latter apparently due to early atheromatous degeneration, advanced arterial degeneration, however, was not observed.

The majority of the children in my series do not usually exhibit any abnormal pulse rate. In none of them have I heard a cardiac murmur. In twelve cases I have made a note that the pulse was slow; in two cases it was 110 per minute (ages 10 and 12). I have also notes of a boy aged 9 who is liable to epileptic fits, palpitation, etc.; he has also a goitre. This boy is a patient of Dr. Stratton of Rotherhithe, and I came across him while inspecting some school children who were said to be mentally defective. Apparently he is always liable to a fit if he has complained of pain in the chest and palpitation.

Dr. Collins tells me of two cases at Ewell: a boy, who is liable to repeated epileptic attacks and who has a continuous pulse rate of 120 per minute; and a girl, who exhibits an irregular pulse before an attack of major epilepsy. Dr. Collins seems to be quite certain, however, that such cases are uncommon.

Among my own out-patients I have found the pulse slow before and during a psychical attack, but increased in rapidity afterwards, which is exactly what one would expect, seeing that the post-convulsive state is so often one of excitement. Sometimes, however, the pulse rate is increased in frequency during all three stages, such variations being no doubt dependent upon the mental attitude of the patient. I shall refer again to the cardiac element as a causative factor in the disease, under the heading of "treatment."

10. *The Genius or Infantile Prodigy.*—When I was writing above of backward children, I mentioned that the genius as well as the imbecile was to be found among the offspring of an epileptic heredity. Sometimes these infantile prodigies—children, I mean, who are always thinking, whose brains are never at rest—are themselves liable to psychical failures or even to major attacks. Is not the madness of genius proverbial? I have one such child in my series. Mr. N. A. D. Sharp made these interesting notes:—

F. P., a boy aged 8.—He is the eldest of a family of three. His father is English, his mother, aged 33, is a half-caste; her father is Japanese, her mother English. The boy is like his mother, who is Japanese in appearance, though she is a tall woman, while the boy is short for his age. Both father and mother are healthy, and no history was obtainable of either epilepsy or insanity. Since the age of seven he has had four major epileptic attacks, all of them in the daytime, the last being the most severe of the four, twitching continuing for about a quarter of an hour. He is an excitable boy, not nervous, affectionate, and not spiteful. He sleeps well at night; the appetite is good, and the bowels are regular. The boy is extremely musical; he always plays by ear. He has already composed some short pieces of his own, and if taken to a concert will subsequently play correctly on the piano the music which he heard for the first time the night before. At school he is in Standard I. The report is that he is very quick to learn, but that he takes little or no interest in lessons apart from music. He seems to experience no difficulties with Grand Opera, and everyone who has heard the boy play, looks upon him as a musical genius.

11. *The Hysterical Child.*—I have already said that I look upon the moody and lethargic child as often the first stage of a progressive dementia. I think myself that the epileptic child with hysterical attacks marks a further stage on the road. I am writing now of hysteria and not of the *hysteroid* attacks which are really psychical epilepsy, and sometimes wrongly called hysterical. Hysteria in children is, of course, very rare, but if it occurs, the possibility of epilepsy underlying the condition should always be remembered.

"Epilepsy," says Dr. William Turner, "is a dementing disorder; hysteria, on the other hand, remains throughout a purely functional, mainly psychical, disease; it has no pathological anatomy and no tendency towards dementia." The point I wish to make is, that if hysterical attacks in a child are alternating with epileptic fits, whether the latter be of the psychical or major variety, then you have early signs of epileptic dementia which will be still more obvious when puberty is past. Dr. Collins agrees with me that the most important feature of distinction between these two psycho-neuroses is that the epileptic attack is followed by a greater or lesser degree of mental confusion with or without automatism or other phenomena, while the recovery from the hysterical attack is immediate, and the dissociation of consciousness, or its perversion, is limited to the duration of the fit. There is far more difficulty of diagnosis in connection with minor attacks than with major, and Dr. Collins tells me that he has more than once seen an *apparently* hysterical seizure as a pre-convulsive phenomenon to a real attack of epilepsy, so that he sometimes finds it impossible to draw the line between the two. Such an opinion makes it very plain how dangerous may be the application of hypnotic suggestion for the purposes of *diagnosis,* for though epileptics may *not* be hypnotisable, you may induce a state of mental environment which happens to be the pre-convulsive psychical state for some particular epileptic. In the case of major attacks, the presence of the extensor plantar response after the fit would point to epilepsy, but this alteration of reflex is not constant, and in minor attacks of epilepsy is rare.

The following notes refer to a child who exhibited both epileptic and hysterical attacks. I am indebted to Dr. A. H. G. Burton for the notes:—

L. J., a girl aged 13.—She is an only child who is cared for by her grandmother, the mother being dead. No history is given of either insanity or epilepsy. She has been liable to attacks of "petit mal" for three years past, but more recently she has had major fits. There is no "aura," the child falling down without warning, and striking her head in her fall. The fits have recently become more severe and more frequent. On September 15th an attack lasted for two hours, the child, according to the statement of the grandmother, "passing out of one fit into another." The last fit which she had at home was followed by a short period of unconsciousness. Then she was put to bed, and a little later "she got out of bed and pretended to have another, screaming very much all the time." These are the words of the grandparent. She has also had a similar attack in the Out-Patient Department, which I have seen, leading to no mental confusion of any sort, and there have also been, at intervals, epileptic fits. Menstruation has not yet started. This child during the past six months has shown progressive mental deterioration. She is much more stupid, very irritable and cross, besides having little or no memory. She had previously reached Standard VI. in an Elementary Council School.

12. *Progressive Epileptic Dementia.*—I have already referred to those idiot children among my out-patients whose epileptic trouble dates either from birth or early infancy. In some of the cases, the epilepsy may be associated with a congenital amentia, but in others, repeated epileptic fits have produced irreparable damage in a brain which was already showing signs of a normal development. Putting aside altogether these aments or dements of infancy, all the clinical types of epileptic children which I have described above may show an unmistakeable mental deterioration, which is the more rapid and the more obvious in direct proportion to the number and severity of the attacks. I have, under the various headings, given an indication of the changes in character which may be observed among them, and of the fact that sudden alterations are the outward sign of some particular cycle of nerve-storm through which the child's individuality is passing. With the terminal results of such a psychical revolution I shall deal more especially in my next two paragraphs.

(To be concluded).

The Inter-Hospital Boxing, Fencing, and Gymnastic Competitions are to be held in the London Scottish Hall, 59, Buckingham Gate, S.W. (by kind permission of Col. G. A. Malcolm, commanding), on Saturday next, March 11th, at 8 p.m. Tickets may be obtained from Mr. E. S. Bowes, Guy's Hospital.

Sport.

Rugby Football.

GUY'S v. CAMBRIDGE UNIVERSITY.

Guy's were without Stringer, Saner, Medlock, and Harkness for this match, played at Cambridge on Wednesday, February 15th, resulting after a good fast game in a win for the Hospital by 2 goals and 4 tries to 3 goals and 1 try. Cambridge were without their full-back, Pinkham; McCosh and Scholefield were also absent. The conditions were practically ideal, brilliant sunshine and dry turf. Thanks to great form by their forwards, Guy's soon managed to take a comfortable lead, which stood them in good stead just after half-time, during which period of the game Cambridge looked very much as though they would run out winners.

The wind favoured the Guy's men at the start, and after about ten minutes' play, in which neither side gained any material advantage, Lacey put in a good run and pass to Stokes, who had but to pass the Cambridge full-back to score the first try of the game. Stokes missed the extra points. After Ovens had saved the Light Blues from a very hard attack on the part of the visiting pack, the ball was worked back again and Kennedy pounced on it for a second try. Again Stokes missed. Just afterwards Kennedy scored again. This time Hind goaled, so that at half-time Guy's had 11 points to their credit. Cambridge, who before the interval gained an unconverted try through Fraser, could therefore only claim 3.

After ends were changed the University men got the advantage of the wind, and were early aggressive. Crouch looked a scorer, but Lacey was very safe. However, just after, through no fault of the Guy's back, Ovens scored for Lockhart to goal. Lockhart, Ray, and Ovens next had a hand in some play which enabled Ovens to score again, Lockhart repeating his former success with the goal-kick. The score now stood, Cambridge 13 points, Guy's 11 points. Cambridge in less than five minutes went further ahead, Kitchin adding a try. Lockhart converted. This was the end of the Varsity's scoring. The Hospital regained their form, and before the end Stranack, Covell, and Monaghan crossed the Light Blues' line. Hind converted once, and the game ended:—

Guy's, 2 goals, 4 tries ... ... 22 points.
Cambridge, 3 goals, 1 try ... ... 18 points.

Guy's.—G. E. W. Lacey (back); A. L. Stokes, O. Kane, W. E. S. Digby, G. C. Covell (three-quarters); P. J. Monaghan, J. E. Davies (halves); G. R. Hind, C. S. L. Roberts, W. S. Stranack, R. S. Kennedy, T. D. Stout, V. Glendining, O. Parry-Jones, M. Tweed (forwards).

GUY'S v. UNIVERSITY.

Hospital Challenge Cup.—First Round.

This match was played at Richmond on Monday, February 20th, and resulted in a win for Guy's by 4 goals, 4 tries (32 points) to 0. University Hospital

have not a very strong side this year, so too much must not be made of the win. University did not extend in any way the "Holders;" it is, therefore, rather difficult to criticise the play or to get an idea from this match as to the weak spots in the Guy's XV. One fault that must be remedied is the slow breaking-up of the forwards, and another the fatal mistake of tackling too high. Two forwards, one half-back, and two of the three-quarters are the chief offenders in this respect.

Guy's had the wind at their backs at the start, a great advantage, as it takes a great deal out of a pack to play against the breeze, blowing as strongly as it did on this occasion. The first score was obtained by Roberts, Stokes kicking a good goal. Stringer was the next to run in. Good passing left him with the ball and three men to beat; this he accomplished skilfully; Stokes missed the extra points. From the drop-out Digby got away nicely and sent Medlock over, but he was pushed into touch in goal. Before half-time Stranack gained a try after some good passing by the Guy's three-quarters, but no addition was made to it; Stokes' good kick went wide.

University had taken a lot out of themselves against the wind, and did not offer very much further resistance, though Goddard and Jarraway did all they could to keep the scoring down. Roberts reopened the scoring with a neat try. The kick, taken in an easy position, was not successful. Stokes was the next to add a try, but again he missed the extra points. Before the end Stringer had two more tries put to his credit, and Stokes also gained another. All three were converted by Hind, the final score being as given above. Team:—

Guy's.—G. E. W. Lacey (back); L. B. Stringer, A. H. Harkness, W. E. S. Digby, A. L. Stokes (three-quarters); J. G. Saner, C. H. Medlock (halves); G. R. Hind, W. S. Stranack, C. S. L. Roberts, R. S. Kennedy, T. D. Stout, V. Glendining, O. Parry-Jones, M. Tweed (forwards).

Remarks.—The Hospitals now get a bye into the semi-final round. It is very essential that all players whose services are likely to be in request should train thoroughly and keep themselves in the best possible condition for the next match, A match is often won or lost in the last few minutes of the game. Perfect fitness ensures a man individually, and a XV. as a whole, lasting to the very end, which often means a victory on the post, where slackness and flabbiness would mean the very opposite.

GUY'S v. OLD ALLEYNIANS.

The ground of the Old Alleynians was not in a very fit state on Saturday, February 25th. The venue of the above match was therefore changed to the College ground. The Old Boys had about their strongest side out. Guy's were well represented, except that Roberts and T. D. Stout were away from the pack. The final score was 11 points to 6, or 1 goal and 2 tries to 2 tries.

Garrett, the very speedy winger of the Alleynians, scored the first try for them. He received the ball from a wide pass by Kempson, and running with great resolution, punted past Lacey and threw himself at the ball. It was a very fine try, but Garrett hurt himself in falling, and could take no further part in the game. It was hard lines on the home side, as Garrett is their most dangerous scorer. Stokes might have scored soon after; with good passing, from which Digby gave up to him, the line was practically open, but after sprinting, he hesitated, and was tackled by Green, the Alleynians' full-back. The equaliser came from Stringer; the halves and three-quarters handled, for Stringer to receive and gain a try. Stokes made a good effort to goal, but it was not quite successful. Guy's kept up the pressure, and Stokes punted to Green. Green missed the ball, which went some yards behind him, but the Guy's three-quarter had not followed up with all speed. Had he done so there was nothing to do but kick and run after the ball to secure a try. For a few minutes Garrett pluckily reappeared; but he was scarcely fit to stand, much less to play, and finally left the field for good. Before half-time Wade got round the blind side very neatly. Passing to Wright on the line, that player easily scored. No goal resulted, and ends were changed, Old Alleynians 6 points, Guy's 3.

On resuming, Guy's held the upper hand, and a fine movement by the three-quarters ended in Stringer equalising with an unconverted try. Soon after, Kennedy scored after a useful dribble. A fine kick by Stokes converted, and Guy's were now leading by 5 points. The three-quarters were constantly in action, but the defence was very good. Once it looked a certainty from the line that Covell had scored, but a "scrum" was ordered. Again a very fine piece of play enabled Stringer to snap up the ball from Covell as the latter was tackled. Stringer romped away, but was called back; very hard lines, as the effort of both Covell and Stringer looked free from infringement. The Old Boys put up a great effort before the end. But Lacey was steadiness itself. Eventually Stringer punted well beyond the centre, and a good game ended. Team:—

Guy's.—G. E. W. Lacey (back); L. B. Stringer, G. C. Covell, W. E. S. Digby, A. L. Stokes (three-quarters); J. G. Saner, C. H. Medlock (halves); G. R. Hind, W. S. Stranack, R. S. Kennedy, V. Glendining, O. Parry-Jones, M. Tweed, R. Stout, a Guy's man (forwards).

Remarks.—There was no fault to be found with the play of the forwards. The kicking was, perhaps, a little too hard near the line. Parry-Jones and Tweed have improved a lot. Much of the three-quarter work was good, the high wind making accurate passing a little difficult. Covell played very well, but hesitates before handing on to Stringer; consequently the speedy outside man finds it impossible to avoid overrunning. Digby showed up well; Stringer was at his best; Lacey very safe; Medlock had a big handful in Wade. Saner at the "scrum base" was very clever in getting the ball away. If the team keep fit, so they can play their hardest in the subsequent rounds of the "Challenge Cup Ties," the cup should not change its present quarters.

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Passim.

THE famous milk-churn and the almost equally famous Inter-Hospital Rugby Cup are, it seems, inseparable. Take care of the one and you will not lose the other. There is something in mascots, after all. But they must be chosen with discrimination. A coffin, such as the London men carried at the final Cup tie, is not only gruesome, but also, apparently, unlucky.

AT Richmond on Thursday last was witnessed the triumph of the milk-churn for the third year in succession. It is scarcely necessary to say that Hind and Stringer and Stokes and the rest of the fifteen did a good deal to help the milk-churn in its victory. The feats done on that day will remain for a very long time in the memories of those who were fortunate enough to be among the large crowd that assembled at the ground to see Guy's v. London once more. It was a great game, and everyone was agreed that Guy's deserved to win; it was no chance victory. The first half was a keenly-contested struggle, but Guy's, on the whole, had the best of it. There was no scoring, however, until after half-time. The second half was full of dramatic episodes. Harkness was injured, and had to be carried off the field, but soon afterwards he returned, just at the right moment to take his part in a pass all along the Guy's three-quarter line. After a return pass a try was scored, and inevitably converted. Later, through a mistake on the part of the London full-back, Medlock scored a second try, after a race for the ball. This was unconverted. For the rest of the game Guy's had things practically all their own way, but there was no further scoring, and time was called with the result:—Guy's, 1 goal 1 try (10 points); London, nil.

THUS Guy's won the Cup for the third year in succession, and for the fourteenth time in all since 1875, when we were the first winners. In ten out of the last fourteen years we have been successful. We congratulate Mr. Hind most heartily on having led his team to victory, and on his own personal success as a captain and a player. We trust that Guy's may always have men of his calibre to maintain its reputation in the football field.

IN some of the other Inter-hospital competitions we have not been so successful. The Soccer Cup has unfortunately left us for a time, and gone over to our dearest enemies—the London. In the Inter-hospital Boxing Competitions we were also badly beaten by the same rivals. The Inter-hospital Hockey Cup, however, has been won by Guy's for the fifth year in succession.

THE various Hospital Societies are bringing their winter season to a close. The Physical Society is holding its final meeting, at which the Treasurer's Prize Essay is read, as we go to press. It will be reported in our next issue. The Debating Society, we believe, abandoned its last meeting, when the pernicious state of our penal system was to have been discussed, owing

to a counter-attraction in the shape of the inter-hospital boxing contests. The Physiological Society characteristically closed its season by a discussion of the main controversy of the day, opened by a paper on the "Physiological Aspects of Socialism," or the "Socialistic Aspects of Physiology"—we are not sure which.

The second report of the Departmental Committee appointed to inquire into the law relating to coroners and coroners' inquests contains the evidence and appendices. A series of questions was addressed to the coroners of England and Wales, and the first appendix contains a summary and analysis of their answers. The questions of chief interest from a medical point of view were three, viz., (*a*) Are you of opinion that a coroner, before deciding in a given case whether to hold an inquest, should have power to direct a post-mortem examination as a preliminary step? (*b*) When a post-mortem examination is directed, do you consider that it should be entrusted to the medical practitioner engaged or concerned in the case, or should further provision be made for examination by an independent expert in special cases? (*c*) In your experience have any difficulties arisen from the present system of death certification, or does the system work satisfactorily? A large majority of the coroners answered the first question in the affirmative, and also held the opinion that the choice of the person selected to perform the examination should be in the complete discretion of the coroner. Opinion as to the present system of death certification was on the whole favourable.

Another appendix in the report contains an interesting summary of the deaths under anæsthetics which occurred during the year 1908. Of a total of 235, 139 were under chloroform, 25 under ether, 41 under various chloroform and ether mixtures, 5 under stovaine, 5 under ethyl chloride, and the rest under various mixtures and sequences. In 41 cases death occurred before the operation had been commenced, and of these it is noticeable that no less than 29 were under chloroform.

A number of tickets for the Second Annual Simple Life Conference and Exhibition, which is to be held at the Caxton Hall, Westminster, on March 21st—24th, have been sent to the Editor. They may be obtained in the Library by anyone who wishes to have them.

Pupils' Physical Society.

The Eleventh Meeting of the Session was held in the Wills Library at 8 p.m., on Saturday, March 4th. Mr. G. T. Mullally was in the chair. Twenty-five members were present.

The following pathological specimens were shown:—

1. An old Pott's fracture, by Mr. Richards.
2. A pancreas from a case of diabetes, by Mr. Miller.
3. Sarcoma of kidney, by Mr. Garrard.
4. An ectopic gestation, by Mr. Edmond.
5. Aneurism of thoracic aorta, by Mr. Billing.
6. Chorion epithelioma with secondary deposits, by Mr. Reeve.

In the subsequent discussions the Chairman, Messrs. Schlesinger, Layton, Rippmann, Leipoldt, Dr. Mann, Messrs. Stout, Reeve, Billing, McNair, Edmond, and the Honorary Secretaries, took part.

The meeting adjourned for coffee at 10.30 p.m.

Nursing News.

Matron's Office.

On February 8th, Nurse Spenceley left the Hospital on completion of her three years' training, and Probationer Matthews was appointed to succeed her as Head Nurse in Patience and Samaritan wards.

On February 15th, Nurse Macreath left the Hospital on completion of her three years' training, and Probationer Waters was appointed to succeed her as Head Nurse in Cornelius ward.

On February 18th, Nurse E. Turner left the Hospital on completion of her three years' training, and Probationer Goddard was appointed to succeed her as Head Nurse in Bright ward.

On February 22nd, Nurse Fanconi left the Hospital on completion of her three years' training to take up her duties on the Private Nurses' Staff.

On March 1st, Nurse K. Vine, Head Nurse in John; Nurse du Sautoy, Head Nurse in Lazarus; and Nurse Mullan, Head Nurse in Luke ward, left the Hospital on completion of their three years' training. Probationer Windemere was appointed Head Nurse in John ward; Probationer Knight, Head Nurse in Lazarus ward; and Probationer Calvert, Head Nurse in Luke ward.

On March 6th, Nurse Rees left the Hospital on completion of her three years' training, and Nurse Mullan took up her duties as Staff Nurse in the Electrical and Light Department.

On March 13th, Nurse Forsaith, who has been acting as Night Sister *pro tem.*, left the Hospital to take up the appointment of Sister at the General Hospital, Northampton.

On March 14th, Nurse Lethbridge left the Hospital on completion of her three years' training, Probationer McLaren was appointed to succeed her as Head Nurse in Mary ward.

Epilepsy in Children:

A Review of One Hundred Cases.

BY DR. H. C. MANN.

(*Continued.*)

D. TREATMENT AND ITS RESULTS IN AFTER LIFE.

There is no doubt that the treatment of epilepsy is much more encouraging in childhood than in adult life. Epilepsy is a self-perpetuating disease, and the probability of recovery from it varies inversely as the length of time that it has lasted. Not that I am assuming any finality about the figures which I give, for most of these children are below the age of 13, and though at the present time some of them may appear to be cured of their trouble, they have yet to pass the stage of puberty, which I have already mentioned as a season for watchfulness.

Perhaps it would be well first of all to inquire as to the after history of the epileptic child if he be neglected, or if treatment be unsuccessful, and in attempting to follow up such cases I have again to acknowledge my indebtedness to my friends who are working at the London County Asylums. It would seem that, after puberty, the epileptic child who is still liable to frequently repeated seizures, becomes more and more a burden to his relatives, not so much from the anxiety of watching for attacks as from the fact that in the inter-paroxysmal periods the psychical element of the disease comes more and more into prominence. First of all, the trouble only leads to a little domestic inconvenience, and the mother in her love refrains from mentioning the child who cannot be brought into the drawing-room when there are visitors in the house. Later on, the progressive degeneration of character brings hideous discord into the peace of the family circle, for the child becomes untruthful, his actions are now not merely eccentricities, but sometimes gross violations of decency which cannot be overlooked or hushed up; and finally, when moral suasion has repeatedly failed to produce any improvement, some attempt at restraint is followed by retaliation on the part of the epileptic, and the lives of those who have grown old with that anxiety which alone is bred of affection, become endangered by outbursts of impulsive insanity. So it happens that between the ages of 17 and 24 years, chronic epileptics of all ranks of life who are liable to repeated seizures tend to pass into private or public asylums, having been duly certified as persons of unsound mind, and there they form the *most dangerous* type of insanity, because they are *always liable to combine* against those responsible for measures of restraint.

There seems to be no doubt that the worst examples of such a progressive epileptic dementia occur in those patients whose attacks began and were unchecked during childhood. Here are some figures given me by Dr. Collins which concern 178 admissions to the Colony at Ewell, the duration of the epilepsy being estimated from the date of the first fit. In 68, the epilepsy had existed twenty years; in 27, fifteen to twenty years; in 21, ten to fifteen years; in 14, seven to ten years; and in 11, five to seven years.

On the other hand, it is undeniable that much can be done in preventing the appearance of these terminal features of the disease if only treatment is started from the onset of the epileptic attacks. Dr. William Turner, in reviewing the results of treatment for some 350 epileptics *of all ages*, gives the following figures:—Cases of arrest, 23·5 per cent.; cases showing improvement, 28·7 per cent.; confirmed cases (no results for treatment), 47·8 per cent. When the disease is treated in childhood the percentage showing "improvement" is higher, provided that the treatment is continued as long as there are any minor attacks, for there is a tendency among out-patient relatives to cease attendance as soon as the major fits have stopped. My own figures work out at 27 per cent. arrest, 39 per cent. showing improvement, and 34 per cent. no improvement, the great majority of these referring to children who were under treatment before the age of 11, and who have *not* yet reached the age of puberty. Elsewhere (Table II.) I have arranged these results according to the duration of the disease at the time that treatment was started, and the importance of early treatment is obvious from the figures.

Details of Treatment.—The great majority of these children have come under observation during the school age, and one of the first questions of the parent is with regard to education. I always make a rule of giving a school exemption certificate for a year, because in the absence of any organised system of lessons, you have a far better indication of the effect of treatment. Unfortunately, among the poorest class of patient, regular attendance at hospital with a mother, who is often a wage-earner, is impossible, and the children either obtain admission to an infirmary, or go back to school contrary to advice in order that the parent may obtain the benefit of the Act for the Provision of Meals for Necessitous School Children. Regular attendance at a Council School, or absence from school as an alternative, is alone sanctioned by the Educational Authorities, and it seems a great pity that occasional attendance for certain subjects cannot be allowed, as is possible among those children whose parents can afford a private education. What form such an education shall take, and what lessons shall be permitted, must depend entirely upon the temperament of the child and the degree of mental impairment, but in all cases where it is possible a private education should be adopted.

Some writers make a distinction between "idiopathic" and "accidental" epilepsy, the latter form of the disease being that which is induced in persons of neuropathic heredity by reflex peripheral irri-

tation. Dr. Leonard Guthrie is inclined to think that 50 per cent. of the epileptic seizures of childhood are of this reflex type, and he goes on to say that the idiopathic epileptic is dull, stupid and unemotional, while the accidental epileptic is usually excitable, passionate and emotional, his intellect being often much above the average. My own experience has not been the same in this matter. Not more than 15 per cent. of my cases can be called accidental epileptics, and I find no such difference in temperament between these two types, some of the brightest children exhibiting fits without any "aura," and unassociated with either disordered visceral functions or errors of metabolism. My friends at the Asylums also do not find that as the child grows older there is any increasing tendency for the fits to be directly excited. Constipation and dyspepsia with some form of intestinal colic, more often than any other ailment, seem to be directly responsible for epileptic attacks. Sometimes enlarged tonsils and adenoids, with post-nasal obstruction, are the exciting cause in nocturnal epilepsy, but it is a mistake to imagine that operative treatment will always stop the fits, and I know of two cases where excitement and nervousness resulting therefrom have left the children worse than they were before. Carious teeth, errors of refraction and pelvic trouble have all received attention, and have been given an exaggerated importance as factors in the disease. Only very rarely is it that there is any benefit to the patient from the point of view of his epilepsy. Some epileptics, no doubt, are more liable to have attacks if they are in poor health—they may have fewer attacks as their general health improves, but any casual visitor to the out-patient department will be convinced of the fact that their health is usually good; some of them are very bonnie children, and, as they grow older, prove to be bright, useful and even energetic.

Bromide medication.—Everyone is convinced of the value of the alkaline bromides in recent epilepsy; differences of opinion exist as to the way in which they should be prescribed. Sodium bromide is said to be the most effective, and is recommended by Sir William Gowers and Dr. William Turner; ammonium bromide is said to be the least depressing, but evidence is very contradictory. I always give the three bromides — sodium, potassium and ammonium — together in combination with arsenic, being myself quite certain that you are more likely to stop the fits and at the same time produce a minimum of mental and physical weakness after prolonged treatment. Dr. Leonard Guthrie employs the same method. To a child of five years I should give three grains of each salt, with half a minim of arsenical solution three times a day, and if there were no effect I should increase the dose up to, but not above, five grains of each bromide. If, however, the fits were frequent—several in the day—I should try the effect of adding two grains of chloral hydrate to the mixture before increasing the dose, as experience has shown this to be more successful. At the age of 12 I may give as much as eight grains of each bromide; this dose I never exceed, though often at that age I find five or six grains sufficient to stop the fits. It is a bad plan to increase the dose of bromide every time that a fit occurs, for overdosing with this drug produces such general weakness, both mental and physical, that the fits may actually be increased in number, especially attacks of the psychical type, and these being less severe lead the parent to bring a favourable report of the treatment.

The Effect of Treatment.—Arrest, 27 per cent.; improvement, 39 per cent.; no improvement, 34 per cent. (These figures refer to children who were under treatment before the age of eleven, and who have not passed the age of puberty.)

When the seizures are frequent some improvement is usually noticed in about a fortnight or three weeks, only very occasionally do the attacks stop immediately. If any improvement is coming, it is seen within six months. The more recent the epilepsy the better the prognosis.

Ethel S., aged 2.—First appearance of fits at the age of twenty months. They are said to have followed a fall. I first saw her April 4th, 1910, and during the previous week she had 61 seizures, mostly of the minor variety, including 14 on one day and 12 on another. There were eighteen teeth, and dentition had been normal and uneventful. She was given twenty-seven grains, daily, of the mixed bromides to begin with, and on April 8th the attacks were not so frequent, about eight per diem. The bromide dose was increased to thirty-six grains (mixed bromides), and on April 22nd she was having six attacks a day; major attacks very rare. On July 22nd they were rather more frequent; I do not know why. On September 2nd she was having usually three a day, and was in every way better. September 30th: She has had no attacks during the past week. November 11th: She is having no attacks; except a little screaming at night she is much quieter. December 9th: No further attacks. February 17th, 1911: There have been no attacks since last September; she is still rather pale. Her age is 3 years. She is very mischievous, and only says a few words. She is dirty in her habits, but understands that she is in disgrace when accidents occur. Her memory is poor. She is not nervous; she plays with the other children quite happily, and is not spiteful. She sleeps well. Very affectionate with her mother. She does sometimes sit apart in a corner in a moody condition. For eleven months past she has been taking thirty-six grains of bromide a day, together with the arsenic, and her mental and physical condition is much improved.

I never give the bromide in any other form except occasionally in combination with chloral, when a child

is very excitable or nervous in the inter-paroxysmal periods. In this type of case such a mixture is very useful (*vide supra,* Nervous Children, G. W.). Chloral is also of value in the status epilepticus.

Strontium Bromide is used by some, and it had an extended trial at the Epileptic Colony when Dr. Bond was medical superintendent there. Dr. Collins tells me, however, that the drug has since been discontinued, no advantages were noticed while it was in use at the Colony, fits were not less frequent than they are now, and in his opinion it is more uncertain in action, besides being twice as expensive. It is stated, erroneously, to be less depressing than potassium salts, but it contains two atoms of bromine in the molecule, and the advantage claimed for it is probably due to the fact that it is absorbed much more slowly from the bowel.

Duration of Treatment.—I continue the dose of the bromides undiminished for a year after the fits have stopped, and then a smaller dose may be given during the second year. No rule can be laid down as to whether bromide treatment is necessary in children for a longer period, for sometimes when the parent has ceased to attend there has subsequently been a return to hospital, not on account of "fits," but because the mother says that "the child seems better when she is taking the medicine." Probably among adults treatment is advisable for a much longer period, but when the epilepsy is of recent date and the mental state is unimpaired, a quiet life and a special education for the child seems to be all that is necessary.

Experience alone can regulate the administration of bromide to those epileptics whose attacks, whether major or minor, still continue in spite of treatment, and I must again insist upon the importance of observing the effect upon the mental state as well as upon the convulsive element of the disease. Just as the gouty man is better, both mentally and physically, after his attack of gout, so the epileptic child, liable perhaps only to infrequent seizures, may be restless, irritable and degenerate for days together *before* his fit occurs, and *afterwards* is capable of taking his place as a useful and acceptable member of the family circle. It does not always follow that you better your patient because you stop his fit. Dr. Collins is very definite upon this point in connection with chronic epilepsy which is well established and has a firm hold of the patient. Here are some notes from a report which I saw at the Colony:—

Patient is a young female whose epileptic fits started at the age of one year, continued until the fourth birthday, and then again started at the age of ten in connection with menstruation. As an aura "she used to see coffins, and felt that someone was going to grip her shoulder." In spite of this warning she often has a fall, exhibiting anæsthesia in the post-convulsive stage, so that she is insensitive to stitching. Minor attacks sometimes occur with an intermittent pulse. Further on in the report appears this entry:—"She has had no fits for ten days, *and is always worse mentally when this is so.*"

I have also notes of another chronic epileptic at the Colony who has had fits from infancy, and whose fits can be to some extent controlled by bromide, but whenever the drug is administered, though the fits are less severe, she becomes obscene in behaviour, and wet and dirty in habits, so that she remains really much better without the medicine.

There is another type of patient which I have already mentioned as somewhat uncommon among children—the cardiac epileptic—requiring treatment along special lines. The failure seems to be more of the vaso-motor centre than of the heart itself, this organ exhibiting excitable action on account of a low peripheral blood pressure. The child is markedly anæmic, easily tired and fragile in appearance; the very last person to benefit from the open-air life of country activity which is sometimes recommended indiscriminately for all epileptic patients. These are children who always tend to have an epileptic attack at the end of a tiring day, and if their attacks are infrequent they will probably fare much better at school. Dr. A. E. Russell, in his Goulstonian Lectures for 1909, has drawn attention to the important part which the vaso-motor centre takes in the production of nerve-storms affecting the cerebral arteries, and in his opinion the initial unconsciousness of the major attack and the psychical equivalent of the minor seizure, are due to vaso-constriction of these vessels, the subsequent re-admission of blood to the brain producing a rhythmic stimulation of the motor cortex which may, in turn, give rise to clonic convulsions. It is the general opinion of those engaged in asylum work, who see large numbers of epileptics, that such cardio-vascular symptoms as Dr. Russell has described are uncommon. Careful records are kept at the Colony of every epileptic attack occurring there, and such symptoms as irregular heart, palpitation or tachycardia are very rare in the pre-convulsive stage. In a few cases, however, such as in the type of child I have described above, the addition of a few minims of the tincture of digitalis to the tribromide mixture, or the use of an acid strychnine tonic with a single dose of bromides late in the afternoon, seems to work like a charm when other methods have failed. Possibly the success which has sometimes been found to follow the use of Gélineau's formula, a combination of bromide of potassium, picrotoxin and arseniate of antimony, is also due to cardiac stimulation.

Borax was introduced thirty years ago by no less an authority than Sir William Gowers, who states that "it often very much diminishes the frequency of attacks, though it does not seem to be capable of arresting them." My own experience has been unfavourable. I was using it extensively at one time, hoping that for children it would be an especially

useful drug, and liable to produce less depression than the bromides. In every case where I started treatment with borax I gave up the drug for the bromide mixture; and I never found borax to check the fits, much less to stop them, in those cases where bromide had already failed. The experience of my friends at the asylums has been similar.

Recent researches into the coagulability of the blood in epilepsy seem to point to the possible use of calcium salts. I tried calcium lactate after reading a paper by Dr. A. R. Littlejohn giving details, in the *Lancet,* of cases successfully treated by him at Hanwell Asylum. The dose employed by him was one of fifteen grains three times daily. One of the patients was having as many as 45 fits during a week, and after three months' treatment, the fits, gradually diminishing during that period, had ceased entirely. A day and night record was kept of all the attacks, and during the fourth month of treatment no fits occurred. Such considerable improvement was noticed among all the patients under treatment that Dr. Littlejohn considered the drug worthy of a more extended trial. I tried a ten grain dose in the cases of five children, who were chronic epileptics obtaining no benefit from my usual bromide treatment, and after three months' trial I gave up the drug. In three of the cases the parent was of opinion that the child's condition was worse than before; in the others, there had been apparently no improvement.

There seems, however, to be conflicting evidence as to the condition of the blood in the pre-convulsive period, so that possibly only certain cases will react to this form of treatment.

Opium.—I have used opium in the form of *Nepenthe,* both with and without bromide, in some cases of excitable temperament, but for such mental states where treatment is required for long periods, chloral has proved to be much more serviceable, and never seems to make the child a psychical degenerate—slovenly, morose and immoral—as is the case with the former drug.

The Diet in Epilepsy.—A very great deal has been written on the subject of suitable diet, and much difference of opinion exists at the present time. Undoubtedly the diet which has been most strongly advocated is the one which is as nearly as possible "purin-free," with the idea, as Dr. William Turner says, "that nervous energy has its source chiefly in the albuminous and nitrogenised principles of food-stuffs, and as epilepsy is a disease characterised by the unstable condition and proneness to 'discharge' of the cortical nerve-cells, therefore, the above element in the dietary should be limited." In his opinion, when a salt-free and purin-free dietary is employed, "very substantial benefit is derived, and relatively small doses of the bromides may be prescribed."

Sir William Gowers, on the other hand, has observed that epileptic attacks were, on the average, a little *more* frequent and severe when meat was withheld, and has never seen any benefit by the omission of salt from the dietary.

There seems to be no doubt, however, that rapidity of saturation of the body with bromide does depend upon the amount of chloride intake, and that bromide intoxication is due to a deficiency of chlorides in the blood. Dr. Eden Paul has reviewed this subject in a recent number of the *Journal of Mental Science,* his authority being Ulrich. It seems that the bromides absorbed from the alimentary canal, being excreted only with difficulty by the kidneys, accumulate in the blood, and the osmotic pressure of this fluid rising too high, an increased excretion of sodium chloride takes place, the percentage of this latter salt in the serum becoming subnormal. With increasing intake of bromides, symptoms of bromism—tremor, muscular weakness, ataxia, (not always bromide-acne)—may appear, but these can be held in check, and will rapidly disappear with the free administration of common salt, to the extent of 180 grains per diem. The cumulative action of the bromides has also been shown by Laudenheimer, who found that an epileptic taking 1200 grains of bromide during eight days only excreted 525 grains, no therapeutic effects resulting until equilibrium was established between dose and excretion. Such a condition of bromide equilibrium can be obtained after administration of 30 grains of bromide per diem during one month, but the effect is more marked if salt is withheld from the food.

Upon the above experimental facts the use or uselessness of a salt-free diet depends. If you wish to rapidly produce symptoms of saturation with the drug, pushing the dose even to "bromism," you can do so more readily by limiting the sodium chloride intake, but as such an effect is rarely, if ever, required in the treatment of epilepsy, there seems to me to be little use for the salt-free dietary. Besides this, the excretory power—*re* bromide—must vary in different individuals; some children will tolerate a much larger dose than others.

I have very often tried the omission of salt from the dietary without any result; one of the most obstinate of my epileptics, a girl, aged 11, never eats any salt, as she dislikes it. In three cases where 54 grains, 45 grains, 45 grains of bromide respectively were being taken without any effect upon daily attacks of minor epilepsy, the omission of salt caused some improvement for a short time.

With regard to the use of a "purin-free" dietary, I do not myself believe that it can have any possible advantages as a *routine* measure; all the support which such a treatment has received would seem te be upon the theoretical grounds which I have mentioned above. Everybody knows that during childhood very little meat is eaten; the great majority of children dislike meat, or eat very sparingly of it. Their diet is composed largely of carbohydrate, with milk, eggs, butter,

fruits and vegetables. Among the poorer children who attend hospitals, fried fish is provided, with meat possibly once a week, but a very little inquiry will convince anyone that their food contains "purin" compounds only in small quantities. Three of the children only in my series are fond of meat; one of these is a boy who "would eat nothing else but meat, if he was allowed to do so," but there is also no doubt that his general health is much better when he is taking meat. This fact I have ascertained by experiment.

Far more important evidence comes from the Epileptic Colony. When Dr. C. H. Bond was Medical Superintendent there, he endeavoured to make the dietary for the whole of the patients as "purin-free" as possible, and he has very kindly written in reply to my inquiry, saying that, "with the exception of 2½ ounces of cooked meat on five, sometimes six, days out of the seven, the allowance of coffee for breakfast, and tea for "tea" (neither very strong), the dietary was practically "purin-free." This dietary was in use, I understand, for about two years. More recently a return has been made to an ordinary diet, and as careful records are taken of all epileptic manifestations, it has been possible to compare results under the two systems. Dr. Collins, the present Medical Superintendent, does not find that any advantage, either as regards fits or mental state of 330 patients, can be claimed for that period during which the "purin-free" diet was in general use. Dr. Bond tells me, however, that he still believes in the theory of the "purin-free" dietary. He quotes the case of a child who developed epilepsy at the age of 11, and whom he has treated with carefully-watched doses of strontium bromide, with an almost rigidly "purin-free" dietary for the past four years. He says that "on at least three occasions, when relaxations of her dietary have been either sanctioned or accidentally occurred, such have been followed by the onset of one or more fits."

No doubt, digestive disturbances are often the exciting cause of epileptic attacks, and in such cases dietetic treatment is of great value. Dr. Collins emphasises this point in the current number of the *Journal of Mental Science*, referring to the frequency of indicanuria and other proofs of intestinal putrefaction in many epileptic patients, either before or after a fit.

E. Some Problems which concern the Well-being of the State.

From a consideration of the above-mentioned details, both ætiological and clinical, two facts come into prominence. Firstly, that even if treatment is started in early childhood, shortly after the onset of the disease, 34 per cent. of the cases will remain unimproved by treatment, and in later life, or when the disease has been untreated during the early years, the proportion remaining subject to chronic epilepsy is as high as 47 per cent. According to Dr. Craig, 15 per cent. of *all* epileptics subsequently become insane, so that if chronic epileptics, unrelieved by treatment, are alone considered, nearly 40 per cent. of them subsequently require supervision of some form or other.

Secondly, that a heredity of epilepsy or insanity is *admitted* by the relatives in 39 per cent. of the cases, and even this proportion is found to be increasing by reason of more complete investigation on the part of medical officers at the asylums.

There is, however, another matter of far more importance, demanding urgent legislation, to which attention has recently been drawn by Dr. T. E. K. Stansfield, the Superintendent of Bexley Asylum. Insanity of all forms, *including epilepsy*, is increasing, *not* among the upper, middle, and intelligent working-classes, but among the lowest ranks of the community, where it is increasing out of all proportion to the remainder of the population. During the last thirty years, from 1879 to 1909, the ratio of recognised private insanity has remained at 2·9 per 10,000 of population, and this in spite of the fact that large numbers, previously described as paupers, have been transferred to the private list, owing to the ability of their friends to pay for maintenance. During the same period the ratio of recognised *pauper* insanity has risen from 20 to 32·8 per 10,000 of population, in other words, it has increased to the extent of 64 per cent. During the same thirty years the strenuous life, and all those associated factors which are universally acknowledged as productive of mental instability, has been present just as much among the upper and middle classes of the community as among that class from which pauper patients are derived, while, at the same time, the environment of the latter has enormously improved, and this without any corresponding decrease in insanity. Only one conclusion can be drawn from these facts. Among the upper classes there is an increasing conviction of the evils which must follow marriage among those who show signs of mental instability, whose families have a neuropathic taint. Heredity is generally recognised by these as playing a very important part in the causation of insanity. As the Bishop of Ripon said in his address to the Church Congress last autumn, "The diseased, the feeble-minded, the alcoholic, the tuberculous ought not to marry. Some of these should be urged by motives of patriotism to lead single lives." On the other hand, among the poorest classes of the community there is much ignorance, but *still more* carelessness and indifference as to the results of intercourse. Why worry about the future if the State is at hand to pay for the maintenance and accept the responsibility of a degenerate progeny?

Here is a hideous example from my own out-patient room:—

A mother, aged 25, has suffered from major epilepsy nearly all her life. Her mother and two sisters are

also epileptic. This woman (aged 25) has already had three pregnancies: one child, aged 5½, is brought up to out-patients for major epilepsy; a second child, aged 3, is an idiot; the third pregnancy resulted in a miscarriage. She is now pregnant again *for the fourth time*. Whenever she is pregnant the epileptic attacks are always much worse. The husband is said to be a healthy man. The home is in Rotherhithe. Neither of the parents can excuse themselves upon the ground of ignorance, for the woman has twice become pregnant since being warned by me of the all-too-probable results of further intercourse. Arrangements are already being made for the State to undertake the cost of maintenance of these children, but the full evils of such an arrangement are only appreciated when it is understood that the epileptic parent received also a State fosterage during her earlier years.

It is in order to prevent such a multiplication of degenerates that legislation is urgently needed, and in an able paper communicated to a recent meeting of the Medico-psychological Association by Dr. Faulks, the various proposals, some of which are already in practice abroad, are clearly set forth. Dr. Faulks draws attention to the fact that among the patients discharged from the London asylums, who have recovered, or partially recovered, from their mental trouble, no less than 75 per cent. of the women are at the child-bearing age, and 90 per cent. of the men are at the reproductive age, "the large majority of these people are of the poorest class, mostly improvident, poorly educated, and absolutely ignorant of the malignant powers they possess."

There are only two possible remedies: 1, compulsory detention; 2, sterilisation; and with regard to these alternatives, Dr. Stansfield, with his enormous experience of asylum work, speaks in no uncertain way: "I very much doubt whether it would be possible to manage a colony of feeble-minded where there is no prospect of their ultimately recovering their freedom. The hope of release is constantly with the patients, even in an institution of this kind (*i.e.*, Bexley Asylum), and I believe it is that hope alone which enables us to give them a reasonable amount of freedom, and to induce them to occupy themselves. Without it, such an institution must become at once a prison and not a hospital—a prison without hope. To my mind, there is but one remedy, and that is sterilisation."

Different opinions are naturally held by alienists as to the type of patient suitable. Dr. Stansfield some years ago proposed that those patients should be sterilised who had been discharged and who had subsequently returned to the asylum under certificate. Dr. Faulks is of the opinion that the operation should be suggested to selected cases about to be discharged, the seriousness of the powers of reproduction having been pointed out. This method has already proved most successful at the asylum of Wil, in Switzerland. The State of Indiana has passed a law (1907) enforcing the operation of salpingectomy or vasectomy, when in the opinion of the asylum authorities the case is incurable.

Dr. J. R. Lord, the Medical Superintendent at Horton Asylum, says, "There is no doubt to my mind that a large number of our 'recoveries' ought to be sterilised before discharge, though, in my opinion, the difficulty is, how to deal with the *sane* member of neuropathic families."

The important point, however, seems to be that the epileptic must be prevented from becoming a parent, for so far as the records of my epileptic families go, provided that neither of the parents are epileptic, the families are large, and it is very rare for there to be more than one member of the family exhibiting epileptic phenomena. The first step, no doubt, should be the compulsory notification of the disease. This would impress upon the parent the serious nature of "the attacks," which are often thought of no account, and would, I think, tend to prevent the marriage of young epileptics, seeing that 80 per cent. of the cases start before the twentieth year.

How very serious is the nature of the disease when the fits have become well established, and mental symptoms have supervened, may be gathered from the fact that of 160 cases discharged during three years from the Colony at Ewell, no less than 131 were transferred or re-transferred to Asylums as being unsuitable for the freedom of a "colony" life. Such a possibility can only stimulate to careful observation and treatment of the disease in childhood.

In conclusion, I have to express my thanks to many clinical assistants, who, by their careful notes of my out-patients, have made the collection of my experiences at once so easy and so interesting to me, and to my friends at Bexley Heath and Epsom, who, besides providing so many happy memories of their hospitality, have been always ready to give up hours of their well-earned leisure to furnish material for this paper, much of which has been prompted by their work as alienists, and further enlarged by their valued and extensive experience.

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TABLE I.—Showing the age of the child at the onset of epileptic attacks (103 cases).

Age.	Congenital.	1st Year.	2nd Year.	3rd Year.	4th Year.	5th Year.	6th Year.	7th Year.
No. of Cases.	9	17	22	18	9	2	2	6

Age.	8th Year.	9th Year.	10th Year.	11th Year	12th Year.	13th Year.	14th Year.
No. of Cases.	4	1	4	—	3	4	2

TABLE II.—Showing those cases, in regular attendance for at least three years, in which the attacks stopped, the attacks were diminished, or the treatment was without effect. Arranged according to the duration of the disease when treatment was started (41 cases).

Duration of Disease.	Cessation.		Improvement.		No Effect.	
	Major.	Minor only.	Major.	Minor only.	Major.	Minor only.
Six months and under	3	1	5	—	—	—
One year ...	1	—	1	—	1	2
Eighteen months	2	—	2	—	1	1
Two years ...	—	—	1	—	1	—
Three years ...	2	—	1	—	1	—
Four years ...	1	—	1	1	2	—
Five years ...	—	—	—	2	3	1
Six years ...	—	—	—	1	—	3
TOTALS ...	9	1	11	4	9	7

Specialities.

Two Useful Preparations.

Magnesia is recognised as a useful drug in gastric conditions where a mild alkali is indicated. The ordinary suspensions of magnesia have a tendency to consolidate in the stomach, and the carbonate, by the giving off of carbon dioxide, may give rise to unpleasant distension. A very agreeable preparation is Phillips' Milk of Magnesia made by the CHAS. H. PHILLIPS CHEMICAL CO. It is a smooth, fluid, tasteless preparation, readily miscible with other fluids, and may therefore be prescribed with carminatives, astringents, or other drugs, as desired. It consists of hydrated oxide of magnesium, not less than 24 grs. in each fluid ounce.

Besides its uses as a gastric sedative, a new use for fluid magnesia has lately been pointed out by dentists. Used as a mouth wash, particularly at night just before retiring, it has a very good effect in the prevention of dental caries and oral sepsis by maintaining the alkalinity of the mouth cavity. Phillips' Milk of Magnesia is being used with great success for this purpose by dentists, and it is so pleasant to use that it is appreciated by their patients.

Another preparation made by this firm is Phospho-Muriate of Quinine Compound—a combination of phosphoric acid, phosphates of potassium, calcium, magnesium and iron, with quinine and strychnine. This forms a very suitable preparation for use as a tonic after long illnesses, in anæmic conditions, and for functional dyspepsias.

Papers by Guy's Men.

Charles H. Fagge, F.R.C.S., Assistant Surgeon to Guy's Hospital: A Lecture on Injuries of the Lower End of the Humerus. Delivered at Guy's Hospital.—*British Medical Journal*, 11th March, 1911.

Arthur F. Hertz, M.A., M.D. Oxon., F.R.C.P., Assistant Physician to Guy's Hospital: An Address on Dilated Stomach. Delivered before the Worthing Branch of the British Medical Association.—*British Medical Journal*, 4th March, 1911.

Kenneth W. Goadby, D.P.H. Camb., M.R.C.S. Eng., L.R.C.P. Lond., L.D.S., R.C.S. Eng., Hunterian Professor Royal College of Surgeons of England, Lecturer on Bacteriology at the National Dental Hospital: The Hunterian Lecture on The Association of Disease of the Mouth with Rheumatoid Arthritis and certain other Forms of Rheumatism. Delivered at the Royal College of Surgeons of England on 6th March, 1911.—*Lancet*, 11th March, 1911.

W. Arbuthnot Lane, M.S. Lond., F.R.C.S. Eng., Surgeon to Guy's Hospital: The Principles on which the Treatment of Resting Conditions of the Skeleton is based.—*Idem.*

Also: A Clinical Lecture on Some of the Common Injuries to the Knee-Joint, and their Consequences. Delivered at Guy's Hospital.—*British Medical Journal*, 11th March, 1911.

Earache.

CLINICAL LECTURE BY Mr. MOLLISON.

Gentlemen,—I have chosen earache as the subject of my lecture to-day for two reasons, the first, that it is a condition you will frequently meet with and be called upon to treat, the second, that recently there have been in the Out-patient Department instances of the less common forms of earache.

When a patient suffering from earache seeks advice, a careful examination of the ear and its immediate neighbourhood will be made, and in the great majority of cases some obvious inflammatory lesion will be seen, an auricle swollen from erysipelas, a meatus blocked by a boil, or a membrane red and bulging from pus behind it in the tympanum; in such cases the cause of the pain is clear. But in a small percentage of patients examination of the ear will reveal no abnormal or inflammatory condition, and search for the cause of pain must be made elsewhere, and, as we shall see, in parts quite distant from the ear.

The causes of earache, then, can be simply divided into inflammatory and non-inflammatory, and this is the division I have made in the abstract I now hand round.

EARACHE.

Divide into Non-Inflammatory, 2 per cent.; and Inflammatory, 98 per cent.

A.—Non-Inflammatory.

1. *Trauma.*—Wax; foreign bodies.
2. *Unexplained.*—Scarlet fever; malaria; influenza; lead; cold; enlarged thyroid; gout; blowing the nose.
3. *Reflex.*—
   Anatomy, connection of ix. and vii. and v.
   Generally due to lesions in buccal cavity.
   Teeth. Note pulling the ears in children.
   Tonsils.
   Tongue. Epith.
   Pharynx. Abscess and growth. ? Adenoids and ? dyspeptic pharyngitis.
   Mumps.
   Nasopharynx.
   Eustachian tube.
   Pyriform fossa. Neoplasmata.
4. *Organic Nervous Lesions of* vii.; ix.; v.; *2 and 3 spinal.*
   Anatomy again.
   a. Posterior poliomyelitis of sensory part of vii.; of geniculate ganglion. With or without herpes.

Thirty per cent. of cases of Bell's palsy suffer from pain in ear.

Two cases of facial palsy with herpes. (i.) Girl, aged 11, vesicles on concha and in meatus; earache; subsequent facial palsy; hearing perfect. (ii.) Man, aged 34, redness of concha and meatus (lower part); earache; loss of taste; facial paralysis; hearing normal. In both, pain gradually disappeared, and recovery from paralysis under electrical treatment.

Cases known where herpes on membrana tympani—due probably to inflammation of petrosal ganglion of ix., and thus of tympanic nerve.

In one case an operation was performed for persistent maddening pain in ear; the pars intermedia was cut; pain disappeared.

b. Tabetic.—A very small percentage of cases of tabes suffer from shooting pains in the ear.

5. *Functional Nervous Affections.* Not known (Hunt); but note the case of a girl, aged 17; complained of dull aching pain in ears, combined with bleeding, which was found to be due to self-inflicted injury.

B.—Inflammatory.

Consider Auricle; Meatus; Middle Ear.

Auricle.—Impetigo; erysipelas; perichondritis; septic condition due to ear-rings; frost-bite, &c.

Meatus.—Generalised meatitis; localised meatitis—boils; condylomata, rare.

Middle Ear.—Consisting of—
   Eustachian Tube.
   Tympanum, subacute or acute otitis media, suppurative or non-suppurative.
   Antrum.
   Complications: mastoiditis; lateral sinus thrombosis; suppuration in middle or posterior cranial fossa.

You will see that the non-inflammatory causes are considered first, because they are often more interesting, though less easy of treatment. I will pass in review the various causes, emphasising those that appear to want expansion or explanation.

Under the heading of *trauma* is included wax; wax is gradually secreted into the meatus,

causing no symptoms till the meatus is actually obstructed, when deafness results, and sometimes pain; this pain is due to the expansion of the wax from water getting into the ear, perhaps after swimming, with consequent pressure on the meatal walls. Removal of the wax by syringing brings about immediate relief.

Under the second heading, *unexplained*, is a series of diseases which occasionally give pain in the ear, though no local cause can be discovered; the last three only call for comment.

Patients who have an *enlarged thyroid gland* occasionally complain of pains shooting up to the ears; no explanation is given for this, but perhaps pressure on the vagus or its branches may be the cause.

As showing that *gout* may be responsible for severe earache, the following passage from Dr. Graves' *Clinical Medicine* is of interest:—

"As there can be no doubt, then, that a momentary congestion may produce a momentary pain, we may infer that in many instances gouty twitches are owing to some cause which determines an instantaneous congestion of the affected part. Sometimes the congestion is more lasting, and the pain is proportionally intense and persistent. Thus the late Mr. Daly, of Henry Street, mentioned to me the case of a gentleman, the lobe of whose ear was sometimes attacked suddenly by gouty congestion, accompanied by agonising pain, but which never lasted more than a few hours. And I have myself recently suffered from a similar attack in the *cartilage* of the ear, which did not last longer than an hour, disappearing on the occurrence of gouty pains in the fingers."

Dr. Garrod, in his treatise on *Gout*, also mentions twinges of pain in the ears preceding attacks of gout.

Among the patients who attended the Aural Department in 1909 was one—a girl of 24—who complained of pain in the ear on *blowing her nose;* she was not deaf, and no local cause was discovered for the pain.

Before considering *reflex* and *organic nervous lesions* as causes, the distribution of the sensory nerves to the ear must be noticed. The auricle is supplied on its outer aspect in front by the *auriculo-temporal* branch from the third division of the *fifth cranial* nerve; this nerve also supplies the roof of the meatus, and descends on to the outer aspect of the membrana tympani; behind by the *great auricular* from the *second and third cervical spinal* nerves, the branches of this nerve piercing through the pinna from the cranial aspect, which aspect it also supplies; on the upper part of the cranial aspect is an area supplied by the *small occipital* from the *second cervical spinal* nerve. On the inner aspect of the lobule is distributed a branch of the *vagus*—Arnold's nerve, known often as the Alderman's nerve. The concha and floor of the meatus derive their sensory supply from the *facial nerve*. The areas supplied by the various nerves overlap one another considerably. Lastly, the membrane is supplied externally by twigs from the *auriculo-temporal*, and internally by twigs from the *glossopharyngeal*; this latter also supplies the lining of the tympanum and the Eustachian tube.

All this sensory nerve supply is doubtless familiar, except that of the facial nerve. Most of you—indeed I think I may say all of you—learnt and were taught that the facial nerve was a motor nerve, and a motor nerve only with the exception of its branch the chorda tympani. It is now recognised, however, that the facial is a *mixed* nerve, consisting of a large motor part and a small sensory part, having a ganglion analogous to the posterior root ganglion of a spinal nerve. This sensory part consists of the *pars intermedia* of Wrisberg, the *geniculate ganglion* and the peripheral distribution of this ganglion, the *chorda tympani* and the sensory fibres running in the *posterior auricular branch*; this last gives the fibres of supply to the concha and meatus.

To understand the reason why pain can be referred to the ear from the pyriform fossa or the teeth demands a knowledge of the chief connections of the nerves to the ear. The diagram on following page explains itself.

The *reflex* causes of earache can now be considered in detail. In adults and children carious *teeth* or erupting molars are a frequent cause of earache; the pain may be complained of only in the ear, though an obviously carious molar is seen in the lower jaw. In a child the presence of pain in the ears is manifested by pulling the ears or putting the hand up to the ears, as is frequently seen during eruption of teeth. Lesions of the *tonsils*, either a tonsillitis or malignant disease, give referred earache on that side, and this is one of the most distressing symptoms in the late stages of malignant disease of the *tongue* and tonsil.

Naso-Pharynx. There are cases of pain in the ear in children where removal of adenoids brings relief, though nothing abnormal is to be seen on looking at the tympanic membrane.

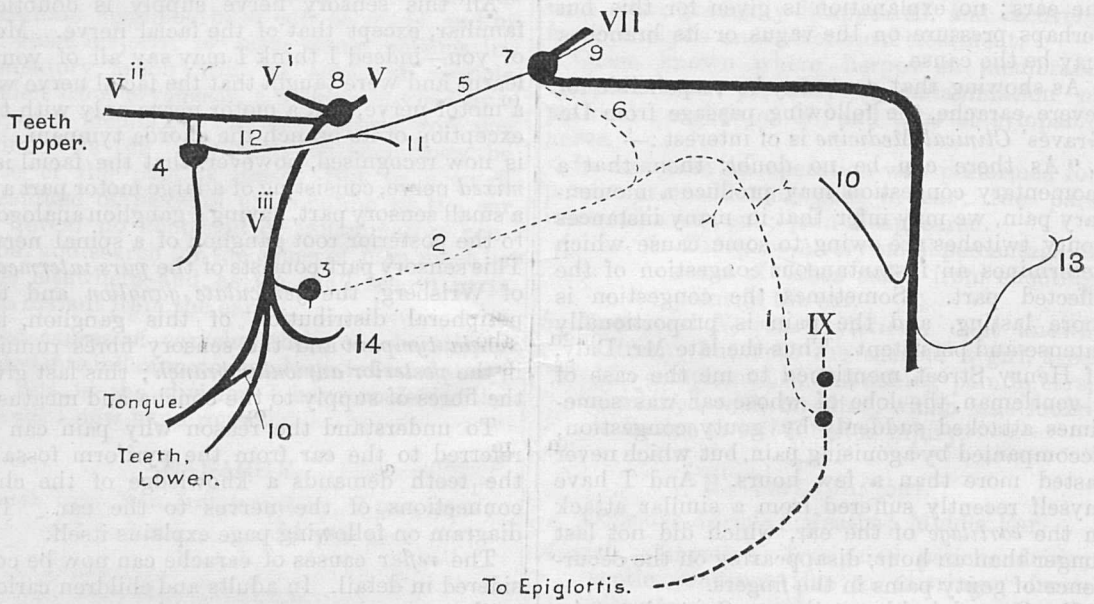
Recently there was a man of 27 in the Hospital, under Mr. Steward's care, suffering from *naso-pharyngeal sarcoma.* He had severe earache, and, indeed, this had been almost his first symptom; the pain had also been severe above

his eye and over the area supplied by the second division of the fifth nerve. The ear was found normal as far as the appearance of the tympanic membrane was concerned, but the man was deaf. On further examination the soft palate was seen to be pushed down on the affected side, and on post-nasal examination a mass was seen filling up the naso-pharynx on that side.

Closely related to these cases are those of carcinoma, beginning round the *Eustachian tube*. The characteristic symptoms of this rare disease are pain in the ear, pulling up of the soft palate on the affected side, and deafness.

the aryteno-epiglottidean fold is the determining cause of the pain. In confirmation of this is the condition seen in an almost similar case to that just quoted:—In a man of 60 growth was found in the left pyriform fossa; no earache; and it was seen that the lower part only of the ary-epiglottic fold was invaded.

To pass to *organic nervous lesions* as causes of earache; under this heading two conditions are considered: the first, *posterior poliomyelitis of the sensory portion of the facial nerve.* We have already seen that this consists of a root, the pars intermedia; a ganglion—the geniculate;



1. Tympanic nerve.
2. Small superficial petrosal.
3. Otic ganglion.
4. Meckel's ganglion.
5. Great superficial petrosal.
6. Communication from geniculate ganglion to 1.
7. Geniculate ganglion.
8. Gasserian ganglion.
9. Pars intermedia.
10, 10. Chorda tympani (intermediate part removed).
11. Great deep petrosal.
12. Vidian.
13. Post auricular.
14. Auriculo-temporal.

The following case is a good example of pain in the ear with growth in the *pyriform fossa*:—

A man of 68 complained of pain on swallowing and pain shooting to the ear. On examination he was found to have a large mass of growth in the left pyriform fossa, stretching up the side of the epiglottis; the ear was normal in appearance. In such cases the pain is referred from the twigs of the glosso-pharyngeal which supply the epiglottis to those which, as we saw, supplied the tympanum. It is not in all cases of growth in this position that earache is complained of; perhaps the extension of the growth upwards on

and a peripheral distribution. Ramsay Hunt has pointed out how many cases of facial paralysis (Bell's palsy) suffer from pain in the ear, and that in some cases this pain is accompanied by a crop of herpetic vesicles on the ear, particularly on the concha and meatus, over the area supplied by the facial; this condition is entirely analogous to the herpes met with in a posterior poliomyelitis of the posterior root ganglion on a spinal nerve (Herpes Zoster). Some of these cases have also aural symptoms—deafness, tinnitus or vertigo. Cases where herpes develops on the ear are not common.

Hunt collected about sixty; it was therefore a matter of considerable interest that in the short space of three weeks two such cases were seen in the Guy's out-patient department.

Case 1.—M.P., a girl aged 10, was brought to the out-patient department on November 3, 1910. She had for five days suffered from earache on the left side, and for the same time her face had been noticed to be "swollen."

On the concha, and in the lower and outer section of the external auditory meatus, was a crop of vesicles; the meatus was somewhat narrowed by the swelling. In the neck were some enlarged glands.

The membranes were both normal in appearance. Obvious left facial paralysis was present. Hearing absolutely normal—the lower tone limit normal and likewise the upper. The herpes had disappeared by November 15th, though the site was marked by some petechial spots and lines, and some excess of skin sensitiveness. Under electrical treatment the paralysis improved.

January 10th, 1911. Much improved; ear normal again. It is a matter for regret that sensibility to taste was not tested.

Case 2.—A. B., æt. 28, a hairdresser, attended the Out-patient Department also in November, 1910, suffering from pain in the right ear and facial palsy. Ten or eleven days before being seen the pain and aching inside the right ear began and had persisted, and four days later the patient woke to find his face paralysed. He attended the Nervous Out-patient Department, and was seen by Dr. Hertz; at this visit the right ear was quite distinctly deaf to the watch.

On examination of the auricle, a patch of reddened skin was seen on the concha and tragus. On close inspection a few small depressions were seen, as though vesicles had been present and had disappeared, and in the meatus was some scaliness on the floor and anterior and posterior walls, and over this area the sensitiveness to touch was different (? increased) from other parts of the auricle and meatus. On the right side of the tongue taste sensations were diminished.

The membranes were quite normal.

The hearing was tested very minutely and no defect could be noticed.

Under electrical treatment the paralysis improved, the loss of hearing noticed by Dr. Hertz when the man first attended may have been due to the paralysis of the stapedius muscle, subsequently compensated for by the tensor tympani which had had time to accommodate itself to the new state of things.

One case has been published in which pain in the ear was so severe that operation was undertaken to cut the pars intermedia, and that with complete success; the pain in this case had continued two years, and the patient, a woman of 27, had become used to taking large doses of morphia.

Cases of *tabes*, in which shooting pains in the ear were complained of, are mentioned by Hunt in his very thorough review of the sensory nerve supply of the ear.

Last of the non-inflammatory causes is mentioned *functional nervous* conditions; one case only can I bring forward under this heading; a girl of 17 for nine months suffered from epistaxis and bleeding from the ears; both were proved to be self-inflicted. She also complained of heavy pain in the ears, though no cause was to be discovered.

B. The Inflammatory Causes of Earache.

These are, as a rule, simple of diagnosis; the ear must be examined systematically, auricle, meatus and middle ear. The *auricle* may be the seat of any form of inflammatory affection, and treatment appropriate to each will bring about relief of the pain. For impetigo, often seen as a result of an otitis media, painting with silver nitrate (a 3 per cent. solution), and an application of yellow oxide of mercury ointment is most efficacious.

In two cases I have seen the inner aspect of the lobule, the site of septic granulations—fibromata almost—as a result of irritation set up by the wearing of *earrings*.

The *meatus*; one of the most frequent causes of pain is a boil in the meatus; on account of the great density of the meatal tissue a very small boil may cause a great amount of pain. The outer two-thirds only of the meatus are affected by boils, as it is only in this part that the glands are found, whose infection gives rise to boils. A very minute boil may cause some difficulty in diagnosis; considerable assistance is given by the use of a fine probe used through a speculum; marked tenderness will be found on the site of the boil, none in other parts of the meatus; to differentiate a boil from an otitis media movement up and down of the pinna is useful; in the case of the boil this gives rise to considerable pain, which is absent in otitis media. Before a boil points, painting the meatus with a 3 per cent. solution of silver nitrate is the best treatment, and the use of a strip of gauze with a few drops of evaporating lead lotion in the meatus; later, should it point, incision under gas is required.

Condylomata in the meatus are rare, they are found in the form of greyish granulations filling the meatus, and are very painful. During the last two years only one case has been seen in the Out-patient Department, and during this time about four thousand patients were seen.*

Generalised meatitis is an uncommon condition. There was one case in one of the medical wards last year. A woman suffering from exophthalmic goitre and kidney disease developed a very severe and most painful meatitis, partly hæmorrhagic, as a terminal affection. After death the middle ear was found to be quite healthy.

The *middle ear* consists of three parts entirely continuous with one another; the Eustachian tube, the tympanum, and the mastoid antrum. Should infection occur in one part of this middle ear it is apt to spread to the other parts. Infection, for all practical purposes, begins in the Eustachian tube and comes from the nasopharynx, and then spreads to the tympanum. As soon as the Eustachian tube gets blocked at all, pain is apt to be felt in the ear. This early stage of infection is easily relieved by politzerisation, and by treating the cause, almost always adenoids in the case of children, and other forms of nasal obstruction in adults.

The tympanum then may be infected, and we find a subacute or acute otitis media. The former condition is characterised by a reddened membrane and a blocked Eustachian tube. Repeated politzerisation will relieve the condition. In a few cases clear fluid collects in the tympanum and causes pain and deafness; incision and drainage relieve the condition. The latter—acute otitis media—may or may not pass on to suppuration; should suppuration not occur politzerisation plus counter irritation, as by fomentations, will probably bring relief. But should suppuration follow, the membrane, previously red and bulging, will now show a yellowish patch; when this occurs incision is the obvious treatment; the incision should be made in the posterior inferior quadrant of the membrane. As it is impossible to tell whether a non-suppurative acute otitis media is going to become suppurative, it is better to incise in the former condition and hope to prevent suppuration, since the pain will be immediately relieved and the membrane heals well. Sometimes the inflammation in the tympanum is confined to the attic, and when such is the case the redness and bulging may be confined to the upper part of the tympanic membrane—namely, Shrapnell's membrane; the same treatment is indicated here, except that when incision is to be made it should be into the bulging part.

The *antrum;* in many cases of acute otitis media infection spreads on to the antrum, and pain is then complained of over the mastoid process; when this is so, incision should at once be made into the membrane, or if rupture of the membrane has already occurred, the perforation should be enlarged to ensure efficient drainage. When this has been done many cases will entirely clear up; some, however, remain painful, and tenderness is found still over the mastoid. Should this tenderness persist, or the patient complain of headache, or the temperature remain raised after three weeks' treatment, operative interference becomes necessary, and autrectomy must be performed.

The various complications of middle ear disease are all causes of earache, but open up too large a field for discussion to-day.

There is one other class of cases that give rise to earache, namely, those of malignant disease originating either in the middle or external ear, or spreading to the ear from outside. These are rare cases, and like the intracranial complications cannot be discussed to-day, and are mentioned in order to make this list of causes of earache less incomplete.

*Note.—Since this lecture was delivered a case of ulcerative meatitis has been seen with a suppurative discharge from which spirochætæ were found in large numbers; it is not certain whether sp. pallida was present among them. Mercury was administered internally, and in one week there was marked improvement.

Appointments.

Civil.

F. J. Pearce, L.D.S., has been appointed Assistant Dental Surgeon to Guy's Hospital.

L. H. Moiser, M.B. Lond., Medical Officer of Health, Crediton Urban District.

Change of Address.

R. E. Brayne, M.R.C.S., L.R.C.P., from Coombe Hay Rectory, Bath, to Fairfield, Curdridge Botley, Hants.

T. Carter, formerly of Richmond, Yorks, to 9, George Street, Wolverhampton.

E. A. C. Knox-Davies, L.D.S., from Burleigh House, High Level Road, to 1, Ida Villas, Main Road, Sea Point, Cape Town.

A. L. Saul, M.R.C.S., L.R.C.P., L.D.S., from Boksburg, to P.O., Box 397, Benoni, Transvaal.

F. Stanley Wood, from Red Lea, Scarborough, to Tapton Crescent Road, Sheffield.

T. N. Wood, B.A., M.B., B.C., from Victoria Hospital, Burnley, to Woodlands, Gravesend.

Pain.

Paper read before the Guy's Physical Society by Alexander Sandison, B.A., B.Sc.

It is often of interest, and sometimes advantageous, to turn aside from the minute study of particular diseases to a consideration of some of the broad features which are common to all of them; in other words, to stand back from our pathological picture and consider its general effect rather than to pore over its multitudinous details; to survey the forest rather than the trees. With this idea in view, I am venturing to bring before your attention to-night the topic of "Pain," not in regard to its manifestation in any special form, but as a representative of those fundamental factors with which, in medical work, we are daily brought into contact and conflict. I do not, then, propose, for example, to expatiate at length on the question of the importance of pain in any individual disease, nor to ponder over the many conflicts which have been, and still are, waged regarding the problems of pain localisation, but rather to endeavour to take a general survey of the various aspects under which pain may present itself to us, and to consider, in possibly a somewhat impressionist manner, its wider significance.

This is doubtless a bold and even foolhardy project, but in extenuation thereof I would plead that, on the one hand, it should be provocative of unlimited discussion and criticism on your part, whilst, on the other hand, it absolves me from the necessity of inflicting statistics or other wild-fowl upon you, but leaves me free to wander untrammelled amid the pleasant fields of speculation.

More seriously, however, I would urge that there should be a definite value in so considering the question of pain. The frequent repetition in the Surgery of such remarks as, "Oh, doctor, I've got *such* a pain!" or "Well, mister, where's the pain?" show in some degree its all-pervading character. It is often the most prominent symptom visible to the medical eye, and it is usually convincing evidence to the layman that it is high time for him to seek out his doctor. A whole branch of medicine is devoted to the study of the elimination of pain by anæsthetics, and the controversies regarding the diagnostic value of particular pains are as endless as they are interesting. Pain, indeed, is one of the primary colours of the medical spectrum, yet, by reason of its very universality, it is apt to receive a chiefly localised consideration, insufficient regard being paid to its broadest aspects.

It is surely, then, desirable to make an attempt to view the question from all sides, and, departing for the time being from the purely clinical standpoint, to attack the problem with the weapons of physiology, psychology, and other even more extraneous sciences. Let us, therefore, consider the main avenues by which we may approach the subject. I will tabulate them briefly to begin with, and then endeavour to study them more closely later on.

In the first place, there appears the way of *Philosophy, Theology and Metaphysic.* It would be open to us to discuss "The Problem of Evil," and its connection with pain. We might estimate the moral value of pain, its importance in the formation of character, the justification of the precept "Spare the rod and spoil the child," on the one hand, or the opinions of the Hon. Stephen Coleridge, on the other. Such fascinating themes would, however, I fear, prove but a delusion and a snare as regards my purpose to-night, for the metaphysical aspect of pain is too purely theoretical for medical minds, and after all, despite all theorising, Shakespeare well sums up the matter, for—

"There was never yet philosopher
That could endure the toothache patiently."

Thus, we may safely leave this side of the question, important though it undoubtedly is. Before doing so, however, it is of interest to remember the outburst that at first followed the discovery of the anæsthetic value of chloroform, and especially its proposed adoption in midwifery. "How wrong," said many excellent people, "to interfere with the dispensations of Providence by seeking to remove the pains of labour with which women have been rightly cursed since the Fall." To this Sir James Simpson made the unanswerable reply that in the scriptural record of the first operation which took place in the world, and which, by the way, was of an obstetric character, we find that "The Lord God caused a deep sleep to fall upon Adam"!

Having thus glanced at the difficulties of philosophy and its kindred in regard to pain, and having then "passed by on the other side," we may plunge into the scarcely less theoretical, though much more relevant, topic of the *evolutionary aspect* of pain. At what stage in the development of organic matter did it arise? In what form did it first appear? Can we conceive of it as present in the amorphous amœba, or is some degree of specialised nervous system necessary to its existence? What, furthermore, has been the value of painful sensation in the cosmic struggle, how has its presence or absence influenced the survival of the fittest? In the individual, too, apart from the species, has pain played a part in its increasing specialisation, and, further, what relation, if any, has pain in disease had to its natural cure? All these and many similar questions will immediately occur to us, but before we can attempt to solve such riddles we must turn to the *anatomical and physiological* conception of pain so that we may have some solid basis of fact from which we may with more assurance survey the realms of theory.

It will be necessary, then, to consider what are the anatomical factors involved in the production of what

we know as pain, to discuss the evidence for the existence of special pain sense-organs and pain nerves, and to investigate their relation to other forms of sensory manifestation. Here we shall find ourselves involved in a consideration of *reflexes* and their properties, and in this field of research there is, to my mind, one worker who is pre-eminent, namely, Professor Sherrington, of Liverpool. His work, no less than his extraordinary phraseology, exercises a hypnotic fascination over me, and I fear you will have more than enough of him before I conclude! A word, too, on the physiological side might be spared for the defence of research against the onslaughts of the anti-vivisectionists, whose minds are so obsessed with their own peculiar views of pain that they are blinded to the actual facts of a physiological laboratory. In this question, however, we of Guy's are so excellently drilled by Dr. Pembrey that none but a passing reference is requisite here!

Modern physiology is coming more and more closely into relationship with *Psychology,* and, as the latter science is now so rapidly growing in extent and importance, no discussion of the nervous mechanism of pain would be complete without at least a passing allusion to its psychological bearing—the question of the "feeling" of pain and its connection with the emotions. Pain, after all, is fundamentally a psychical phenomenon, and the study of its anatomy and physiology is merely a clearing of the way to the understanding of its real character.

In this way, having attempted to scrutinise the more purely scientific aspects of pain, we may permit ourselves to look at it as we see it in *clinical* work, and here the field is wide and broad enough to please the most hardened speculator. In the first place, we must bring to bear whatever physiological definition of pain we may have come to upon our knowledge of it as seen in actual practice. We may in this way find we have a definite basis to work on, a touchstone to apply to particular cases in the hope of being thereby led to the best methods of diagnosis and treatment. We should also, did I only know enough about it, launch out into discussion of the relative values of Head's, and Sherrington's, and others' work on "pain areas" and their importance in diagnosis, whilst the work of Lennander, McKenzie and many another in regard to "referred pain" comes inevitably to mind. On these points, however, I cannot hope to do more than outline the strategic positions of the contending forces, and leave you to back the winners. Strictly speaking, the questions relating to *anæsthesia* are relevant to a consideration of pain, but a more obviously practical bearing is the problem of the correct treatment of pain in disease, the use and abuse of opium, sedatives, etc., and on such points we doubtless all have more or less pronounced individual views. In this *therapeutical* aspect of pain, however, we find the problems of science coming into the closest contact with those of everyday life. To the layman, pain is simply something to be got rid of as speedily as possible, and thus, after our wanderings in the realms of philosophy, evolution, psychology, and the like, we have at last reached common earth again, and from the man in the street's point of view have really come to the point. And in common with him, you, I fancy, must have been quoting to yourselves the line of O. Seaman:—

> "And what, you ask me, am I driving at?
> Wait on. In less than twenty minutes we
> Shall come to that!"

Having thus taken a preliminary canter over the ground, I propose to come directly to what seems to me the crucial point in the understanding of pain, and which is admirably summed up in Sherrington's definition. "Pain," he says, "is the psychical adjunct of a protective reflex." To those unaccustomed to Sherrington's peculiarities of language, perhaps the most striking feature in this definition is the terms in which it is framed. Sherrington, however, is a law unto himself in the matter of technical words, and he coins new and startling phrases with fatal facility. Without the slightest warning he will stagger you by such a sentence as: "truncation of the brain of a mammal in the region of the mesencephalon annihilates the neural mechanism to which the psychosis is adjunct"; or, again, he will describe the movements of a tortoise as follows: "the neutral tango-receptive reactions of the feet of the tortoise hastening stumblingly towards its food may in this way be imbued with a tinge of affective tone derived from the affective tint of the leading reflex, namely, the visual, which itself has thus memorial association with a consummatory reflex of strong affective tone"; and then finally complete your discomfiture by stating that "a touchstone for rank of a centre in this neural hierarchy is the degree to which paths from separate loci and of different receptive modality are confluent thither"! After this you are not surprised to find him speaking of "the circumambient sensual space," describing the eye as "a collection of glorified heat spots," or astonished at his original explanation of what he terms "the saltatory mode of progression of the common flea"!

A man of Sherrington's genius, however, is entitled to licence in terminology, and in all seriousness I would ask your attention to his definition of pain as the psychical adjunct of a protective reflex. To appreciate its meaning we must first revise our acquaintance with reflexes. A reflex arc, I would remind you, consists essentially of a sensory surface from which an afferent nerve fibre passes to the central nervous system, there to branch round a motor nerve-cell from which the efferent nerve fibre passes out to a muscle, gland, or other motor structure. The whole arc may thus be divided into two segments:

an afferent path and an efferent path joined together by a synapse in the central nervous system. It is this synapse which is the crucial factor in the production of reflexes. The afferent and efferent paths respectively are continuous and undivided without communication with other structures. It is only at the synapse that they can come into contact with other reflex arcs, and it is only there that an opportunity for co-ordination of reflexes arises. This is due to the fact that, owing to the enormous complexity of the central nervous system, almost innumerable alternative routes are offered to an impulse arriving by an afferent path by means of which it may pass out along an efferent path. In other words, the intercommunications of the various synapses in the central nervous system are so intricate and complete that any one afferent path can be ultimately put into communication with any one efferent path, and similarly any efferent path may be dominated by any afferent one. The arrangement may be very fitly compared to a telephone exchange. There we find numerous wires meeting at a central distributing station like the various nervous paths meet in the central nervous system. A message comes along one wire which demands that it should be put in communication with some other wire so that two subscribers may talk together. A movement on a switch board ensures this being done, but it is possible for the manipulator of the switches to place the first wire in connection with any other, and in the same way afferent impulses on arriving at the central nervous system may be switched on into connection with any efferent path. The telephone analogy may be pushed still further. A certain subscriber, Mr. A., may so frequently request to be put on to the line belonging to Miss B., that the girl at the exchange may automatically switch him on to that line the moment she hears his familiar voice, and it may require a certain effort on her part to understand and fulfil his wishes if he should at any time request communication with some other line! In a similar way, the impulse from one afferent path may so constantly require connection with one special efferent path that a definite reflex habit is formed which can only with difficulty be altered. It is, indeed, in this way that all habits are formed, and such fundamental actions as walking, speaking, etc., are simply the result of long-continued and frequent linking-up between special afferent and efferent paths. Again, in a telephone exchange, there is a time limit set to the period during which one subscriber may monopolise any particular line, and in a corresponding way we find the so-called principle of "fatigue" to be of the greatest importance in reflex action. In cases where two or more afferent impulses are clamouring for simultaneous use of the same efferent path, or set of paths, but for different purposes, they are allowed control of it successively, the first possessor being soon "fatigued," and replaced by the next most powerful impulse. For example, Sherrington applies simultaneously two different stimuli to the skin of a "spinal dog," one of which will promote flexion and the other contraction of the leg. These contradictory impulses are *not* summated; in other words, the leg does not compromise between flexion and extension, and so stay ineffectually in mid-air, but instead it first flexes for a short time, and then extends, so that finally, if the stimuli are persisted in, it rapidly alternates between the two, and "scratches" violently. Sherrington from this and similar experiments, lays down the principle that in the case of antagonistic stimuli competing for what he calls the "final common path," they are allowed successive and not simultaneous use of it.

The problem of deciding which of such competing impulses shall possess the final path *first* is of great importance, and Sherrington finds that certain types of stimuli produce nervous impulses which are prepotent and dominant over all others, and here we come to the explanation of the adjective "protective," as applied to reflex in our definition. Every organism is in its daily life the constant recipient of stimuli of all sorts, tactile, thermal, gustatory, visual, auditory, and so on. To some of these stimuli an immediate repose is unnecessary, the sight of a familiar landscape or the normal sensations of walking do not need any special reply. On the other hand, the sight of some dangerous object, a snake in the path, or the sound of a motor-car's siren as we cross the road, are stimuli, attention to which is not only necessary, but imperative and immediate, if we are to survive intact. Thus, broadly speaking, stimuli may be classified as nocuous and innocuous, that is to say, those either directly causing or threatening harm to the body, and those whose effect, immediate or remote, is comparatively unimportant. The latter class will, of course, vary greatly from time to time in their value; the sight of food is more important to a hungry man than to a well-fed one, and will provoke a greater response accordingly. Nocuous stimuli are, however, always of the greatest significance, and it is essential that their presence should be immediately recognised and the appropriate reflex response brought about with the minimum of delay. Consequently, we find that such stimuli are prepotent in the control of the efferent paths, and on their arrival, so to speak, all other claims to attention must give way. The reflexes set up by nocuous stimuli are termed *noci-ceptive* or *protective,* and we now find that *pain* is by far the most frequent and predominant form of stimulus which sets up a protective reflex. That, however, is an inaccurate way of stating the case, for pain is really a psychical phenomenon, a feeling, or, as Sherrington says, a "psychical adjunct"; in other words, it is the result in consciousness of the application of a nocuous stimulus to the organism.

We have thus arrived at a psycho-physiological conception of pain, and can regard it as the alarm-bell which sounds in the central office of the nervous sys-

tem to give warning that all is not well and danger threatens. By this means the highest faculties of the organism are rapidly brought to bear on the problem before it, and the body is not left to the mere automatism of undirected reflex action.

It is worth while trying to trace the evolutionary development of this self-protective mechanism. In the earliest protozoa, in which no sign of a definite nervous system can be traced, there must yet have been the necessity for a classification of external stimuli into at least two main categories: the harmful, and the beneficial or neutral. An amœba which paid no more attention to a harmful stimulus than to a neutral one would soon cease to be in a position to appreciate any stimulus at all, and would probably have had but little time to spare for the propagation of descendants who might inherit this excessive catholicity. On the other hand, the discriminating amœba, the amœba who, so to speak, instinctively distinguished friend from foe, good from evil, would forge ahead in the struggle for life, and its race would tend to inherit the earth. Can we, however, speak of "pain" as being existent in these primitive forms? I think not, if we are to adhere to Sherrington's definition, for that postulates a psychical side to the question, and few are able to discern a consciousness in protozoa. Of course, those who consider consciousness to be always co-existent with life will disagree with me, but the question is perhaps only of hypothetical interest. At any rate, we must consider the power of distinguishing between different forms of stimuli as an almost fundamental property of living things. As evolution proceeded, we find a nervous system soon appearing, and the primitive generalised chemical and physical modes of securing co-ordination in the body workings are more and more replaced by a definite and localised system of nerves, by means of which the various segments can be rapidly linked up, and made more efficiently to co-operate for the common good. Obviously, the distinction between nocuous and innocuous stimuli is one of the first functions which would be relegated to this system as the various principles of reflex action developed; the prepotency and domination of reflexes initiated by nocuous stimuli would be deeply ingrained in the organism. Somewhere in this development of the nervous system we must look for the dawn of consciousness, at what exact point matters little, but with its appearance will come *pain*, as we understand it. It is a primary necessity that the growing consciousness should pay special attention to impressions which it is particularly necessary that it should *remember*. Thus, incidents in the life of the organism which were full of danger must have some power attached to them whereby they may impress themselves upon the consciousness; in other words, they must have some strong psychical tone. Now, we have seen that practically all nervous impulses, due to nocuous stimuli, set up the feeling of *pain* in the domain of consciousness, and pain is undoubtedly the most dominating of conscious feelings. In Shakespeare's words:—

> "We are not ourselves
> When nature, being oppressed, commands the mind
> To suffer with the body."

The result of this predominating influence of harmful stimuli, both on the physical and the psychical sides of our nervous mechanism, is to concentrate all the resources of the organism on the counteracting and proper response to the danger ahead of it.

These deductions must surely have a clear clinical significance. In the normal animal pain is a primary indication of something having gone wrong either in the organism itself or in the environment around it. Consequently pain is one of the most important of symptoms and one which requires immediate attention from the doctor. Doctors are, however, a comparatively recent invention, a characteristic production of our so-called effete and effeminate civilisation. In more primitive and more robust days each animal had to be its own physician, and in this arduous undertaking pain was a powerful factor. It is, I think, a legitimate deduction from the propositions already laid down that there is probably some relation between the intensity and force of a painful sensation and the ability of the animal to cope naturally with the cause of that sensation. Pain will be of the maximum value to the organism when, by its clamorous demand for the attention of consciousness, it is able rapidly and effectively to bring about some counteraction to the nocuous stimulus. Thus the acute pain of pleurisy or an inflamed joint will force the body to adopt a rest-cure for these parts, and so tend to promote recovery. Many more examples of this general principle might be given, and it is, perhaps, not too much to say in general terms, that in regard to any particular disease the greater the possibility of what we may call "natural" cure, the greater the probability of that disease being accompanied by definite pain. Of course this can only be stated broadly, and where we have diseases directly affecting the nervous system to any extent the contention will probably not hold good.

Taking it as approximately true, however, I should like to draw your attention to the converse of the proposition and to throw out a possible suggestion it regard to it. Can we in any way assume that, where we find a dangerous and even fatal form of disease *unaccompanie* by pain in its earlier stages (direct implication of nerves being excluded) we may deduce that there is probably no "natural" reflex mode of cure for that disease? For example, perhaps the most disastrous fact about malignant disease is the frequency with which its onset is absolutely painless, and again early endocarditis is, from a diagnostic and therapeutical point of view, cursed with a freedom from pain. Now malignant disease is certainly by no means confined to man; we find it throughout the vertebrata. How is it, then, that Nature has been so strangely remiss in neglecting to provide some apparatus whereby the consciousness may become aware of the presence of so dangerous an enemy, when, on the other hand, the trifling trouble of a pin-prick will immediately

sound the alarm? Is it because to sound the alarm for cancer would have been of no avail to the primitive animal who knew not of the resources and powers of modern aseptic surgery? From an evolutionary point of view it does seem more than strange that, if any reflex cure was possible, the developing animal should not have made at least an attempt to secure it. I submit, then, that it is a point worth consideration whether or no the striking absence of pain in the early stages of certain diseases does not indicate that Nature has failed to find a cure for them. If this be so, it is strong *a priori* evidence against the probability of finding a remedy for cancer on lines other than surgical, or the discovery of some accidentally specific drug comparable to mercury or "606" in syphilis. I am, of course, aware that I am putting forward a highly debatable thesis to which there are many obvious objections at first sight, but it is, perhaps, worth discussion, and as such I will leave it with you.

Let us now turn for a moment to the question of the *mechanism* by which a painful stimulus is set up. Various workers, notably Head and Sherrington, have traced the course of the nerve fibres by which "pain" travels, and the problems of protopathic, epicritic, and deep sensibility have been thoroughly investigated. I will not weary you by recapitulating the details of these experiments, nor do more than mention Head's view that there is an entire re-arrangement of painful, thermal and tactile impulses when the afferent fibres reach the cord, and another in the region of the medulla, for there is, I believe, much conflicting evidence on these points, and the question is by no means settled. So far, however, no one has been able to demonstrate the presence of definite specialised sense organs for pain, and Sherrington puts forward a very plausible explanation of this. He first defines a sense-organ as a group of specialised nerve-endings which has an increased susceptibility to a particular type of stimulus, and a diminished susceptibility for other stimuli, or, as he terms them, they are a group of "elective receptors." In regard to pain, however, it is noticeable that numerous and various types of stimuli (thermal, electrical, etc.) will provoke pain if persisted in beyond a certain point. In other words, all these varied stimuli are "adequate" to produce pain if they are of such intensity that they threaten damage to the skin, *i.e.*, they have become nocuous. Thus, pain sense-organs, if such exist, are *an*elective receptors. Now, it is further noted that these different stimuli which may become adequate to evoke pain, are all of such a kind that they are able to excite nerve when applied directly to the naked nerve. Again, the cornea, according to most observers, is *only* susceptible of pain sensations, and in its histology we find naked nerve fibrils alone, spreading up amongst the epithelial cells. Consequently, Sherrington deduces that it is probable that the nerve-endings subserving skin pain are simply free naked nerve endings, and such are certainly found in the epidermis generally. The absence of any specialised end-organ in connection with pain would be thus in harmony with the varied types and wide range of stimuli which will elicit painful sensations, the one essential being a nocuous character. To quote Sherrington himself as to the evolutionary basis for this idea; "A low threshold was *not* required, because the stimuli were all intense, intensity constituting their harmfulness; but response to a wide range of stimuli of *different* kinds was required, because harm might come in various forms. Tha responsive *range* is supplied by naked nerve itself, and would be cramped by the specialisation of an end-organ. Hence these nerve-endings remained free."

The *psychological aspect* of pain presents an almost unlimited field for speculation, but as yet little that is definite can be stated with regard to it. This is greatly to be deplored, for knowing, as we do, that pain is the psychical concomitant of a fundamental vital principle, the more we can ascertain of its real nature the better equipped we shall be to face the clinical problems of everyday life. How valuable it would be, for instance, could we invent some reliable method of estimating the various degrees of "pain sensation." We are all acquainted with the slightly ailing lady who protests that she is continually in "horrible pain, doctor" (but who may, nevertheless, preserve a smiling countenance), and also with those persons who can regard the most serious cuts and wounds with stoic contempt. Most people occupy an intermediate position between these two extremes, but for everyone there are many grades in the degree of the intensity with which pain is felt according to the general circumstances—internal and external—associated with it. Verbal definitions of the amount of pain as given by patients are wholly fallacious, and yet we possess few, if any, real signs for estimating this most important factor. Increased rapidity of pulse, alteration in the size of the pupil, are typical "tests," but none are very reliable. Some ingenious persons have invented "algesiometers," instruments by which an even pressure is gradually increased on some sensitive part, and the patient shouts when the pressure become pain, and thus his "pain-index" can be estimated. Dr. Rivers, of Cambridge, once experimented with such an apparatus on certain savage tribes, and thought he was getting on splendidly until he found that the various savages were betting amongst themselves as to who could *hold out longest*, and thus Dr. Rivers was getting a record, not of the point at which pain became appreciable, as he thought, but of the will power of these men to refrain from crying out; a useful psychological fact, no doubt, but not the one he wanted! Much of the difficulty, of course, lies in the very varied meanings given by different individuals to the same adjective, and in the greater vocabulary and flow of language of some than of others. It will be long before these initial defects in human nature and training are eradicated, and we seem almost equally far from the discovery of any real science of "algesiometry."

The influence of *Inhibition* plays a great part in the question of pain sensation. There are times when even the most insistent sounding of the alarm bell by a

nocuous stimulus fails to awaken the consciousness to a sense of its dangers and responsibility. The general sense of pain may be dulled by reason of some dominating emotion holding the field and sufficiently powerful to overcome even the forcefulness of pain. The soldier in battle is unaware of his wounds, so possessed is he by the excitement of the fight, and, doubtless, the religious ecstasy of the martyr to a large extent abolishes the pangs of his torture. So, too, the Christian scientist, the hypnotist, or the fashionable purveyor of vibrating machines may, for a time at least, render the consciousness impervious to the warnings of its scouts. In short, to quote Shakespeare for the third and last time :—

> "The tempest in our mind
> Doth from our senses take all feeling else,
> Save what beats there."

The result is disastrous however for the body as a whole; the soldier finds himself slashed and pierced, the martyr dies, and the pains of rheumatism return with renewed vigour after the spell of "Pulsocon" has worn itself out. The consciousness cannot afford to disregard warnings, and it is fatal for it to become so enamoured of vagrant emotions as to neglect the more prosaic side of life.

The hysterical girl with an anæsthetic limb presents nother example of the influence of the central consciousness over pain, but here we are dealing with a definite mental abnormality, which has become a disease. The strangeness of the types of hysterical anæsthesia are well known, but the explanation of this power of localized cutting off of pain and other impulses is far from being clear. Many experiments go to prove that the sensations are first actually felt, and then, so to speak, simply wiped off the slate. The person must, to adopt Irish phraseology, first feel in order to know that he does not feel! There does not seem to be a cutting off of the impulses at some peripheral point; they reach the consciousness and are often comprehended by the *sub*-consciousness, but produce no effect on the predominant personality. Mention of the sub-conscious self, however, is but a temptation to irrelevancy, and I must check my desires in that direction.

There is also another side to the question of pain sense. Some persons exhibit an accentuated susceptibility to pain, either generalised or local, and, as this Society knows, it is in this way that Dr. Craig explains the development of the hypochondriac from the person who is hyperæsthetic in his internal organs and comparatively anæsthetic in his external parts, with the result that his mind becomes dominated by the visceral sensations, and he lives in terror of his stomach. The typical neurasthenic, too, is surely a person who, as Sir James Paget said, has an exaggerated pain sense. In ordinary life we receive countless sensations which pass unnoticed, (the ticking of the clock or the feel of our socks), their intensity has become inadequate to cross the threshold of our consciousness. Those people, however, whose sensibility has become so increased that such sensations can influence consciousness, and actually even become painful, are obviously on the high road to neurasthenia and the asylum, and it is our therapeutical duty to raise the standard of their pain receptors.

The feeling of pain is intimately connected with the production of *emotions* such as anger and displeasure. Sherrington and Goltz have experimented with dogs and cats deprived of their cerebral hemispheres and midbrain, and so presumably unable to experience emotion or feeling, and have shown that all the external signs of anger and discontent, growling, snapping, etc., can be elicited by nocuous stimuli. Strangely enough, no external indication of *pleasure*, such as purring, could ever be obtained, and it would therefore seem that pain centres lie lower than pleasure centres; an hypothesis in harmony with their more essential function. No region of the cortex, apparently, has ever been assigned to pain, and there seems no clear evidence of pain ever occurring as an "aura" in cortical epilepsy; points also in favour of this view. A further interesting fact in these experiments is that the signs of anger and the like produced in the mutilated animal are of very brief and transient duration as compared with their existence in the normal animal. The absence of any *emotional* centre which can be roused by the pain reflexes prevents the continuance of the reflexes without severe and repeated stimulation. It is as if there were no one at home to attend to the bell. This fact has, I think, some bearing on the interesting controversy regarding the relations of the physical and psychical factors of emotion. There are three possibilities open :—

(i) The visceral expression of emotion may be secondary to the psychical.

(ii) The psychical expression may be secondary to the visceral.

(iii) The two may be collateral and concurrent.

The popular view is the first one, and may be expressed by such a statement as: "I saw a ghost, I was frightened and ran." The late Professor Wm. James, however, maintained the second hypothesis to be correct, and contended that the true statement would be: "I saw a ghost, I ran and was frightened," the emotion of fright being, in his view, consequent on the response of the legs to the nocuous visual stimulus aroused by the ghost. At first sight this seems almost absurd, but in reality there is much to support it, and the idea has won many converts. It is certainly common knowledge that by voluntarily suppressing the physical expression of an emotion we do away with the emotion itself. No one can be thoroughly angry if he forces himself to assume a smiling face, and the mere custom of counting ten or persistent slow breathing before speaking is sufficient in many cases to cut off the early emotion of temper by not permitting its outward expression. Again, the comparative feebleness and short duration of the expression of anger in animals, to whom no emotion was possible, would seem to support this view. The whole question, however, is perhaps hardly relevant to our present consideration of pain, and it may well be left on one side.

I fear I have left but little time or space available for the discussion of the more purely clinical aspects of pain, for I have permitted myself to wander fancy-free in the fascinating, but sometimes misty realms of Psychology and its congeners. The detailed problems of *referred pain* are well known. We have had the whole skin surface mapped out by many observers, showing the various areas in which pain is localised when an internal organ is affected, and these charts are of great diagnostic value. Lennander, as the result of his numerous surgical observations, has maintained that the parietal peritoneum is extremely sensitive to all operative manipulations, whilst the intestinal tract, mesenteries, gall-bladder and other viscera were wholly insensitive. Haller, too, has pointed out that the sensitivity of the gall-bladder and similar organs is dependent on the *kind* of stimulus applied. Certain mechanical stimuli, such as cutting or pricking, are inadequate to provoke reflexes indicative of sensitivity, whilst the stimulus of distension, even if the distension be set up by an innocuous substance, will elicit a response comparable to that evoked by the passage of a gall-stone or renal calculus. If these experiments are reliable, they afford a further striking instance of the specialisation of the pain receptors to particular types of stimulus, for whilst cutting is an almost impossible natural stimulus, distension is a frequent event. James McKenzie, also, in his interesting work, "Symptoms and their Interpretation," has put forward individual views of visceral pain, but, as his observations are the subject of expert criticism at the hands of Dr. Hertz and Messrs. Cook, Marshall and Schlesinger, in the last number of the Guy's Hospital Reports, I shall not be foolhardy enough to venture into an arena where such gladiators are contending.

Lastly, in regard to *Treatment*. We have seen that pain has for its chief function the compelling of conscious attention to the altered environment. It is important, therefore, to avoid hindering in any way the natural warnings of the body, but as these warnings usually have their required effect, and bring the sufferer before us as a patient, we may then consider how far we are entitled to dull the pain and to take upon ourselves the responsibility of detecting any further danger signal apart from the indications of pain. The question must obviously be settled by a consideration of the extent of our knowledge of the diseased condition. If we are confident in the accuracy of our pathology, and are able to predict and recognize all probable sequelæ, we may justifiably relieve the pain, and trust to our medical ability to avoid any subsequent disaster. Such is usually the case in common diseases; and thus we find opium and other sedatives are amongst the most frequently prescribed drugs. In certain cases, however, we cannot afford to do so without the warnings of pain, and in acute abdominals it is usually unwise to deprive ourselves of so great a help to the best treatment, even though the patient may not see the force of our argument. As a general rule, however, is it not probably good treatment to relieve pain as far as possible *at once?* The moral and mental effect on the patient is great; he feels "something is being done"—that universal desire of the layman—and the increased confidence which he thereby gains in his doctor is greatly conducive to his rapid reaction to treatment. Surely it is always advisable to eliminate all but inevitable and purposeful pain; life is sufficiently painful and arduous in any case, and the triumph of the healing art will have been reached when we can safely do away with unnecessary pain without the fear of creating morpho- or dipsomaniacs.

Here, then, I will leave the subject of pain. It is one about which much has been speculated, much written, much done. Our whole object in its consideration must be the search after the scientific truth with regard to it in the broadest sense, for at the end of all discussion:

"Words, phrases, fashions, pass away,
But Truth and Nature live through all."

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Urine Examination Made Easy. By T. Curruthers, M.B. Second edition. (Churchill.) Price 1s. 6d. net.

This little book contains clear directions for the carrying out of all the simpler tests for urine which it might fall within the province of the nurse to make. No nurse who follows the directions given in the book can go far astray in the examination of urine, as one of the opening sentences shows:—"A specimen of a patient's urine must be a specimen of that patient's urine, and not a specimen of something else or somebody else's."

The Principles of Gynæcology. By W. Blair Bell, B.S., M.D. Lond., Assist. Gynæcological Surgeon, Royal Infirmary, Liverpool. (Longmans, Green, & Co.) Price 21s. net.

Dr. Blair Bell, with some originality, has given his text-book the title, "The Principles of Gynæcology," and at first sight it gave rise to the thought, "*Has* Gynæcology any principles?" But after reading it we find that the book justifies its title, for it is admirably arranged, and does present the general principles of gynæcology from a point of view as scientific as is possible with our present knowledge.

Quite a number of text-books on the subject—good, bad, and indifferent—have been produced during the last few years, and the book before us is certainly one of the best, and should become very popular among students. It is equally suitable for the practitioner, for many practical details are described with great care. A chapter, for instance, on the preparations for operation

and the after-treatment of an operation case is very valuable, from his point of view. A section which the student will appreciate is a classification of the various causes of the main symptoms met with in gynæcology.

Dr. Blair Bell's style is such as to make his subject interesting, and in arrangement his book is a model of what a text-book should be. The book is sumptuously illustrated. Every pathological condition of importance is illustrated by a picture of a specimen and a photo-micrograph of a section. There are also a number of illustrations of instruments, methods of examination, and stages of operation, etc., and half-a-dozen excellent coloured plates of pathological conditions of the cervix and vulva.

The book bears evidence on every page of great care on the part of all who have been concerned in its production. We sincerely wish that all medical text-books were equally well-conceived in plan, and equally well carried out in execution.

A Pocket-book of Treatment. By R. W. Leftwich, M.D. (Edward Arnold.) Price 6s. net.

This pocket-book contains a large amount of useful information very conveniently arranged and condensed. The first part gives an account of the general methods of treatment which are common to several diseases, and the second part gives the outlines of treatment in the various diseases arranged alphabetically. Several useful tables are included at the end of the book. Speaking of appendicitis, the author says:—"The mortality after operation in suitable cases is said to be low, and one can only conclude that celebrities are *unsuitable* cases, for the usual sequel to the announcement that some celebrated person has been operated upon for appendicitis is his obituary notice"—surely rather a prejudiced opinion.

A Preface,

And a Play.

In an eminently characteristic preface to "The Doctor's Dilemma," in his recently published book of plays, Mr. Bernard Shaw has given us a great deal to laugh at, and one or two things to think about. Unfortunately Mr. Shaw distrusts the medical sense of humour; possibly, even probably, with good reason. Consequently, what would otherwise be a delightfully witty satire is spoilt by a totally unnecessary explanation, which endeavours to separate the man from the doctor. Although the points which the author makes are somewhat obscured by an incontinence of words and phrases, the weakness of one or two of them is rather insufficiently clothed. One protest we would make most emphatically; Mr. Shaw has been too kind to us, and so has robbed us of the satisfaction which he himself must love so much, namely, that of excelling at *something*.

At being called "thieves" we do not cavil, really it is such an eminently respectable title nowadays, but to be accused of possessing the honour which proverbially exists amongst them, that is not only ungenerous, but even untrue!

Again, Mr. Shaw is so learnedly ignorant that he makes the desire of knowledge, of which he is the disciple, seem undesirable. How much nicer to think of a doctor as prescribing a pound of greengages in order to be doing something that will satisfy and agree with the patient's wishes (why, oh why, Mr. Shaw didn't you mention the resultant dyspepsia which would bring the patient back to him again?), than to think of such unpoetical things as auto-suggestion and psychotherapy!

With that passion for contrast, which is one of his greatest attractions to those who admire him, Mr. Shaw insists on being taken seriously in one part of his preface, namely, that in which he deals with vivisection; against which he delivers one of the few reasoned and reasonable tirades we have ever seen.

Macaulay, in writing of Dr. Johnson, said: "How it chanced that a man who reasoned on his premises so ably, should assume his premises so foolishly, is one of the great mysteries of human nature." And while warning us of this very fact himself, Mr. Shaw is perhaps the best instance of it at present alive. Yet he is dangerous. He himself emphasizes the need of wit in a man desirous of instituting a reform, and we would say of him: "That man is dangerous, he makes us smile too much." The answer to the attack we must leave to a more able pen, since with the economy which Mr. Shaw makes his keynote, we prefer not to waste our strength against such a superb and skilled fighter; merely we would again remark that Mr. Shaw is foolish, and utterly foolish, in his assumption of premises.

But what of the play to which this brilliant jest is the preface? Candidly we wish there were more preface and less play. Why spoil a preface by a play? It requires the flexibility of an eel or the minuteness of the microbe, which plays the part of hero in the play, to follow the workings of the Shavian mind. Why should an elaborate pretence to a knowledge of that part of human nature comprised under the term doctor, be followed by an equally elaborate pretence to complete ignorance of the same subject? Mr. Shaw, you disgust us! Having called the public a fool, and having selected yourself to teach it wisdom, it savours of that cruelty which you profess to abhor, to make game of its folly. Unfortunately there is no doubt of the folly! and we can hear the exclamations, and see the uplifted hands, at the audacity of anyone calling Mr. Shaw disgusting. Nevertheless, we will go even further, and commit ourselves to an even worse statement by admitting that we enjoyed being disgusted! Everyone in the profession who has any of that sense of humour which we would place among the highest of human virtues, should read this preface, and if they are quite sure that their virtue is well developed, the play too. Yet we would add a caution. Never believe what you read, and if you do believe it, at least don't say so!

E. G. S.

At Dr. French's Out-patients.

A Case of Pseudo-bulbar Paralysis.

Bulbar paralysis is due to progressive degeneration of the nuclear cells in the medulla oblongata resulting in increasing difficulty in carrying out the movement of the lips, tongue, pharynx, and larynx, so that the patient cannot properly close his mouth, masticate, swallow or speak. Pseudo-bulbar paralysis is associated with very similar symptoms, but is due to bilateral softening not in the medulla oblongata, but in the cerebral cortex, and it has to be distinguished from true bulbar paralysis by the fact that with the latter the tongue wastes owing to degeneration of the hypoglossal nerves, whilst with the the former the hypoglossal nerves are not paralysed and the tongue does not waste.

A man, 76 years of age, came under observation for difficulty in swallowing and in speaking. He was known to have had glycosuria fifteen years previously, at which time the knee-jerks were already absent; the glycosuria persisted, though it was to a considerable extent amenable to dietetic treatment, and it was not associated with acetonuria. During the last few months albuminuria, moderate in degree, had appeared in addition. The general health had been fairly good until recently, but during the last few months the patient had been failing rapidly. Two months ago he developed definite paralysis of the right side of his face with inability to close the right eye properly, or to whistle, though he could still wrinkle his forehead. After ten days or a fortnight this facial paralysis gradually cleared up, but it was succeeded by difficulty in swallowing, and this difficulty had become considerable during the last three or four days, so that he was entirely unable to drink from a glass, and whenever he was given fluids, even in teaspoonfuls, he began at once to splutter and cough because he was unable to prevent it getting down into his larynx. When given semi-solid foods, such as custard puddings that had set, he was able to swallow them better, though owing to weakness of the tongue when one mouthful only was given with a spoon it would remain upon his tongue until the next mouthful was inserted, so as to push the first further back into the throat, when it was swallowed slowly and with difficuly, but without that same coughing that liquids invariably produced. Food more solid than such things as custard puddings could not be taken for two reasons; first, because the patient had no teeth to masticate with, and secondly, because he had during the last few days lost the power of keeping his mouth shut; there was no actual paralysis of the masseter muscles or of the others supplied by the motor branch of the fifth nerve, but the patient had, during the last few days, developed a dropping of the lower jaw, so that the mouth remained permanently open except at the time that food was being administered, when the lower jaw was raised with difficulty. The angles of the mouth had also fallen, so that saliva dribbled from them down the cheek. The tongue could not be put forward more than a quarter of an inch in front of the gums, and that only slowly and with much effort, and with considerable tremor, whilst there was no power at all of thrusting it laterally into either cheek. There was no wasting of the tongue. There was no paralysis of the third, fourth, sixth, seventh or eighth cranial nerves, and no anæsthesia or loss of taste suggestive of a lesion of the fifth. Movements of the palate were still possible, but defective, and the patient, though knowing what he wished to say, made almost unintelligible sounds when he tried to speak owing to weakness of the laryngeal movements, and for the most part he remained silent. His intelligence was not bad for an old man, and he understood things that were said to him, being able to nod or shake his head; it did not seem to be a condition of aphasia, because the sounds he made when he tried to speak more or less represented the correct words; the difficulty was one of articulation owing to the paresis of the tongue, pharynx and larynx. The hand-grips were equal and very fair; there were no knee-jerks on account of the diabetes as mentioned above, but whereas the plantar reflex on the left side was flexor, that upon the right side was extensor, corresponding with the paresis of the right side of the face. There was no bladder or rectal trouble, the heart and lungs were natural, and the blood-pressure measured 140 mm. Hg. Myasthenia gravis was not simulated, there being no recovery of the power of any of the paretic muscles with rest, nor did the amount of movement still possible in the tongue become obviously less when the patient made several successive efforts at swallowing.

The malady was clearly one of labio-glosso-pharyngo-laryngeal paralysis without wasting of the tongue; in other words, pseudo-bulbar paralysis due to bilateral cortical softening, further evidence of which was afforded by the transient facial paralysis, and the extensor plantar reflex on the right side.

Sport.

Rugby Football.

GUY'S v. BART.'S.

Semi-Final Round. Inter-Hospital Rugby Cup.

At Richmond, on Thursday, March 9th, Guy's gained the right to meet London in the Final round by beating Bart.'s by 2 tries to nil. It should in ordinary fairness at once be stated that Bart.'s had three good men, Beyer's, Bower, and Pocock, away on the injured list. This caused some re-arrangement. Eventually Evans and Ferguson were taken from the pack and put in Bart.'s three-quarter line. This naturally destroyed to some extent the working of Bart.'s pack, as the players who took the places of Evans and Ferguson were by no means as good as those two well-known forwards. Guy's had the wind to start with, and made some use of it. High kicks and quick following up paved the way for passing movements. Guy's fairly held their own, but they did not get the ball from the scrums so frequently as their opponents. Eventually Saner, Medlock, and Harkness got going. The latter gave to Stringer, who dodged Dive and gained a good try, rather wide of the posts. Stokes could not convert. Neither was he successful just after with a shot from a mark. Bart.'s played hard after this reverse; their forwards pressed Guy's to the 25-yard line, and then back, so Guy's had to concede a minor. From the drop-out Roberts and Stranack headed a rush to the other end. Some perfect passing got the ball to Stokes, who dashed over with a well-earned try. The same player's good attempt at goal went a little wide, and half-time brought a welcome rest to both sides.

The wind had taken it out of Bart.'s, and they never again worked up the same pace as before. But before long Richards cleared right away; a try looked certain. He turned to look for a confrère to pass to, and hesitated. The delay, though momentary, enabled Stokes to tackle him successfully. Guy's worked back, Roberts' brilliant play being much remarked on. Digby cut through finely, but though Stringer made much ground nothing resulted. Digby and Medlock made an opening for Stokes; he cross-kicked at once, but should clearly have run; a try looked a certainty. Just later Tweed opened to the right again. Stokes received, and once more put "boot to ball" at once. His weight and pace, if used, would almost certainly have meant another try. From one of these kicks Glendining and Kennedy were almost over; but their opportunity was the sequel of luck, and not correct play on the part of the wing man. Bart.'s right next got away. Neale is a fast runner; he punted past Lacey, easily gained the ball with no one in front of him, ten yards from the line. He picked up, but in so doing knocked on. Guy's were fortunate indeed. Brilliant work by Medlock, Stringer, and Harkness took the ball right to the Bart.'s "25," and the game ended with Neale clearing round and punting hard down field. Preparing to follow up he dashed into Digby, and was unfortunately rather badly winded. Guy's, 6 points; Bart.'s, nil. Team:—

Guy's.—G. E. W. Lacey (back); L. B. Stringer, A. H. Harkness, W. E. S. Digby, A. L. Stokes (three-quarters); J. G. Saner, C. H. Medlock (halves); G. R. Hind, C. S. L. Roberts, W. S. Stranack, R. S. Kennedy, T. D. Stout, V. Glendining, O. Parry-Jones, M. Tweed (forwards).

Remarks.—All played very well indeed. Saner deserves a special word for his pluck against a heavy bustling pack; he never hesitated for a moment, and went down to the ball with great persistence. Lacey was "painfully" cool and safe. All the forwards were very good, but they will do well to break up more quickly against London. Medlock, Digby, and Harkness were distinctly good. Digby did many smart things. Stringer was at his best. Stokes played best in the first half. If he had repeated that fine dash by which he scored the second try the score would have been greater.

GUY'S v. LENNOX.

This, the last of Guy's club fixtures, was played on the Lennox ground on Saturday, March 4th. Medlock and Stranack did not turn up, so the Hospital played thirteen men only with Stringer as a kind of last line of defence. Lennox also had many substitutes on their side. Still the game provided some sport and some good exercise for the Hospital, to prepare them for the semi-final against Bart.'s. Only two tries were scored by the Hospital to one try by the Lennox players. The first half was played through without a point being registered by either side. After ends had been changed and about fifteen minutes of the second half had elapsed, Stokes got possession from a cross kick by Covell, and gained a try. No goal resulted, and no conversion ensued after Covell had been sent over with a second try. A few minutes before the end of the match Vandervell after a good run gained a try, no goal resulting. The game ended in favour of Guy's 6 points to Lennox 3. Team:—

Guy's.—L. B. Stringer, G. E. W. Lacey, G. C. Covell, A. L. Stokes (three-quarters); W. E. S. Digby, W. E. Fox (halves); G. R. Hind, C. S. L. Roberts, R. S. Kennedy, O. Parry-Jones, V. Glendining, M. Tweed, A. B. Danby (forwards).

Pass List.

At the February Examination of the Incorporated Society of Trained Masseuses the following were successful:—

Probationers.—A. Church, N. Foster, N. Moore, A. Prince, Rudd.

Nurses.—Forbes, Goddard, Kennedy, Mannell, Taylor.

Birth.

MILTON.—On Feb. 20th, 1911, the wife of William Taylor Milton, M.D., M.S. Lond., Southernhay, Eltham, of a son.

Death.

CORIN, FREDERICK ERNEST, of Port Elizabeth, South Africa, at Guy's Hospital on February 18th, 1911, in his 35th year.

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Passim.

THE following appointments have been made by the House Committee upon the recommendation of the Medical Committee:—House-Physicians: E. P. Poulton (Dr. Hale White), F. A. Dick (Sir Cooper Perry). House-Surgeons: H. Gardiner (Mr. Symonds), T. D. M. Stout (Sir Alfred Fripp). Out-Patient Officers: G. Maxted, F. D. Saner, G. Y. Thomson, C. C. Tudge. Assistant House-Surgeons: R. Stout (Mr. Steward), M. R. Dobson (Mr. Fagge), A. S. Roe (Mr. Rowlands), J. A. Edmond (Mr. Turner).

THE following appointments have been made in the Dental Department by the House Committee upon the recommendation of the Dental Council:—Assistant Dental House-Surgeons: H. L. Messenger, G. B. Pritchard, J. G. Samuels. Assistant Demonstrators in Dental Mechanics: L. S. Langley, W. S. Stranack. Assistant Demonstrators in Dental Metallurgy: T. E. Henderson, D. Wain. Assistant Demonstrators in Dental Microscopy: E. W. Bacon, R. D. Tanner.

No doubt there are some others at the hospital who, like ourselves, take their Cup finals, if not sadly, at any rate less boisterously than the enthusiasts who figured so conspicuously in the illustrated papers recently. If there are, they, like ourselves, must have been mildly annoyed the other day to be handed in the street a bill advertising a place called the "Palais de Luxe Cinema," where, it seems, they have been showing a film entitled "Medical Students on the Spree: Guy's and London celebrate the Hospital Cup Final." So far there was no cause for offence in the bill, but we shuddered when we came to the words: "Come and see yourselves as others see you," and wondered whether these bills were handed to the members of the Staff on their way along St. Thomas's Street—to Dr. X., for instance, or Mr. Z.

WE would remind those of our readers who have not yet subscribed to the fund for Miss Newton, and who desire to send a contribution, that they should post it to the GAZETTE Office without delay, as we propose to publish a further and final list of subscriptions in the next issue of the GAZETTE.

WE offer our heartiest congratulations to Mr. E. P. Poulton, who has gained distinction for himself and the Hospital by his election to the Radcliffe Travelling Fellowship of the University of Oxford for 1911–13. Mr. Poulton is the latest of a series of distinguished Guy's men who have held this famous fellowship. Dr. Ramsden, of Pembroke College, Oxford, was the Radcliffe Fellow in 1893–5, Dr. Herbert French in 1902–4, and Dr. A. F. Hertz in 1905–7. In addition to the above, we may fairly claim that Dr. Pembrey and Dr. Ainley Walker, who were the Radcliffe Fellows of 1890–2 and 1899–1901, respectively, only just miss being Guy's men.

THE twenty-sixth annual report of the Guy's Hospital Institution for Trained Nurses shows that the cases nursed during the year 1910 numbered 1,110, or 179 more than in the previous year, "the lack of available nurses at particular periods, chiefly in the months of February, June, July and August, resulting in 78 applications having to be declined." Of the 23 nurses who ceased to serve the Institution during 1910, two left on reaching the age of 50, six to be married, four to return to the hospital as sisters, eight to nurse on their own account, one to become a staff nurse at the hospital, one a sister at Charing Cross Hospital, and one the matron of the Chinese Hospital at Tientsin. 1,071 cases in the Maternity Charity were attended by nurses during the year, and the Midwifery Training School presented 36 candidates for the examination of the Central Midwives' Board, and all were successful in obtaining the diploma.

WE are able in this issue to give our subscribers an opportunity of purchasing all, or any, of the following sets of books:—Guy's Hospital Reports, bound, 1836–1910, first, second and third series, complete, with the exception of volume 12, series 3. Guy's Hospital Gazette, October, 1872–1898. Medical Chirurgical Transactions, 50 volumes. Clinical Society, 40 volumes. Transactions of the Pathological Society, 47 volumes. Practitioner, 23 volumes. British Association Reports, 21 volumes. Indexed Library Catalogue, Surgeon-General's Office, United States Army, 1881–1899. They are all in good condition. Further information from the Editor, GUY'S HOSPITAL GAZETTE.

From the Gazette's Special Pathologist.

E.M.H., HUDDERSFIELD.—This gland presents well-marked evidence of a chronic inflammatory process, but none of a malignant growth. The capsule and trabeculæ are thickened, the lymphoid tissue is increased, and the lymph channels are dilated and filled with desquamated endothelium.

PATHOLOGIST.

Appointments.

Medical School Appointments.

The following appointments have been made by the Treasurer upon the recommendation of the Medical Council:—

Clinical Assistants.—Messrs. H. W. Barber, G. Dunderdale, H. T. Depree, G. R. Hind, G. T. Mullally, A. Sandison.

Clinical Assistant to Medical Out-Patients.—Mr. G. E. W. Lacey to Drs. Fawcett and French.

Dressers in the Throat Department.—Messrs. T. S. Allen, G. T. Foster-Smith, F. G. Lloyd, E. A. Penny, A. H. Todd, O. E. Williams.

Clerks in the Skin Department.—Messrs. G. E. Genge-Andrews and J. L. Perceval.

Post-mortem Clerks.—Messrs. V. Glendining, T. A. Townsend, M. Pern, S. S. Crosse, C. H. Harper, H. N. Eccles (1st April); W. S. George, J. L. Stewart, E. Lawrence Jones, F. C. Hunôt, E. W. Blake, L. Milton (16th May).

Obstetric Dressers.—Messrs. D. A. Davies, G. W. B. Garrett, V. A. Luna, T. B. Heaton (Mr. Targett); F. Cook, C. Aldis, T. P. Cole, E. C. Peers, W. J. D. Smyth, C. A. R. Gatley (Mr. G. B. Smith).

Aural Surgeon's Dressers.—Messrs. A. H. Todd, F. G. Lloyd, T. S. Allen, N. Mutch.

Medical Ward Clerks.—Extensions.—Messrs. J. F. G. Richards, H. C. Rook, A. B. Danby (Dr. Hale White); G. A. Pratt, W. C. D. Maile, S. Keith (Dr. Pitt); C. H. G. Pochin, G. S. Miller, J. L. Perceval (Sir Cooper Perry); G. E. Genge-Andrews, A. G. H. Moore, W. Robinson (Dr. Shaw); and D. W. Jones, A. M. Henry, A. S. Erulkar, V. Atienza, R. Creasy, F. B. Bull, M. Z. Hanafy, E. M. Mahon, H. S. Groves, R. H. Lucas, Ahmed Abdel-Al, K. J. T. Keer, C. H. G. Penny, L. D. Wright, J. W. Kemp, A. K. Selim, W. R. Pryn, F. L. Spalding, C. H. L. Harper, T. A. Townsend, E. S. Taylor, P. H. Berry.

Assistant Surgeons' Dressers.—Messrs. N. Garrard, R. C. Ozanne, D. V. Pickering, A. C. Clifford, C. Sherris (Mr. Steward); O. G. Morgan, D. W. John, A. M. Zamora, E. G. Martin, W. L. Webb (Mr. Fagge); R. A. Fawcus, J. A. Ryle, W. R. Reynell, J. A. Martin, W. H. Ogilvie (Mr. Rowlands); F. A. Hampton, F. Collar, G. D. Eccles, J. L. Lauder (Mr. Turner); D. H. Barr (Dental).

Surgical Ward Clerks.—Messrs. F. D. Annesley, D. C. Scott, R. P. Ninnis.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the GAZETTE can offer are merely nominal, but if the writer desires any remuneration that fact should be stated. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs.

Infant Feeding in Germany.

It is in the artificial feeding of infants that I find English and German practice most opposed. Differences of course exist in the wider field of general medicine. I have already collected nearly a whole note-book full of points that were strange to me, but here the contrast is fundamental. There is hardly a single principle of infant feeding, as practised in England, that is not utterly refuted in such vigorous language that one is reminded of the battles in the correspondence columns of the *B.M.J.*—For example, the whole system of feeding infants upon diluted cow's milk rests upon the assumption that the casein is the part which is difficult of digestion. The milk is diluted in order to diminish the amount of proteid. The evidence that proteid is difficult to digest rests upon a very old observation by Biedert, who observed in the stools of infants fed upon milk, and who had diarrhœa, certain small white ball-like masses which he believed to consist of casein. It is long since this has been proved to be an error. These little white masses consist of soaps, of a combination of alkaline salts of calcium and magnesium with fatty acids. In the fæces of infants there is never found more than that small amount of nitrogen which is accounted for by the presence of albumen-containing intestinal juices and the bodies of numerous bacteria. Yet the methods of feeding which were founded upon this observation and this erroneous interpretation are still practised; upon it has been built up a whole industry; manufacturers vie with one another in devising foods with a low proteid content. In Germany, on the other hand, the universal belief is that of all the constituents of the milk the proteid is the most innocuous and the most completely and easily digested. In cases of severe dyspepsia, marasmus and diarrhœa it is usual to give for a time the so-called proteid (Eiweiss) milk—cow's milk so modified that it contains twice the amount of casein and about half the amount of fat, sugar and salts.

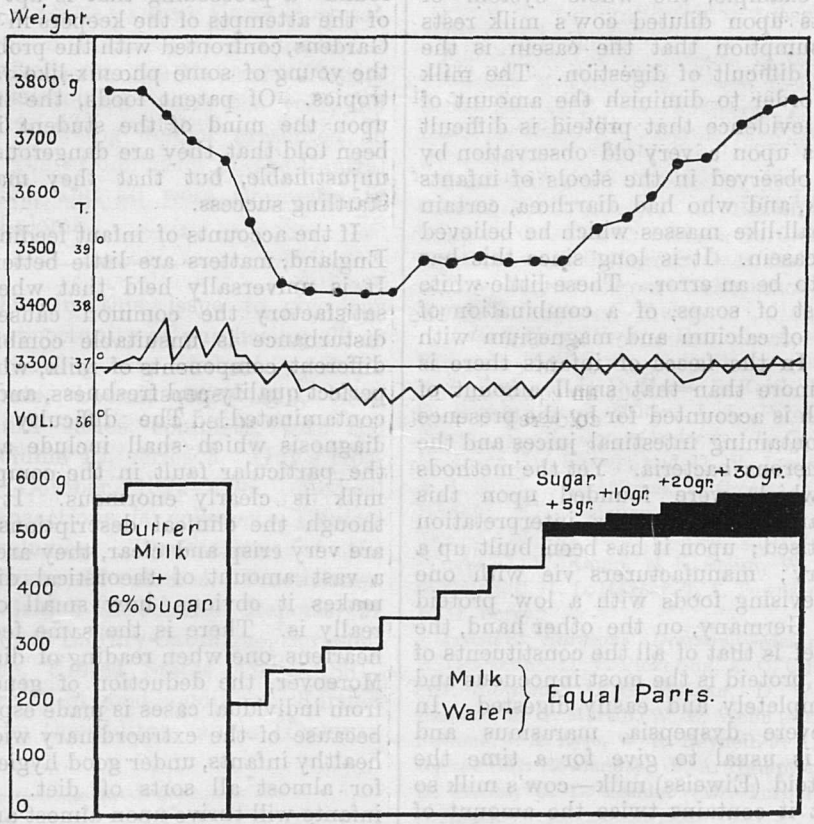
In no other branch of medicine have I found quite such striking contrasts as this. But the difference between the practice reaches far deeper than would appear from the single example which I have given. If a child is fed upon a cow's milk mixture, and an acute digestive disturbance follows—not merely an accompaniment of obscure accidental infection such as pyelitis, otitis media, or an attack of influenza—there can be but two possible causes: (*a*) the milk may have been contaminated accidentally; (*b*) the relative proportions and combination of substances in the milk may have been unsuitable. In England relatively little attention is paid to the second possibility. It is taught that with perfect hygiene want of success is rare. We read very little of symptoms which are the result of excess of carbohydrate or of excess of fat. It is true that in text-books a variety of diets is described in turn—diluted milk, whey and cream mixtures, butter milk, full milk, peptonised milk. All may be tried in turn till one that is suitable is found—a proceeding that is apt to remind one of the attempts of the keepers in the Zoological Gardens, confronted with the problem of rearing the young of some phœnix-like rarity from the tropics. Of patent foods, the impression left upon the mind of the student is that he has been told that they are dangerous and their use unjustifiable, but that they may meet with startling success.

If the accounts of infant feeding are vague in England, matters are little better in Germany. It is universally held that where hygiene is satisfactory the common cause of digestive disturbance is unsuitable combination of the different components of milk, which is itself of perfect quality and freshness, and has not been contaminated. The difficulty of making a diagnosis which shall include a knowledge of the particular fault in the composition of the milk is clearly enormous. It follows that though the clinical descriptions in text-books are very crisp and clear, they are overlaid with a vast amount of theoretical discourse which makes it obvious how small our knowledge really is. There is the same feeling that disheartens one when reading of diabetes or gout. Moreover, the deduction of general principles from individual cases is made especially difficult because of the extraordinary wide tolerance of healthy infants, under good hygienic conditions, for almost all sorts of diet. Because such infants will thrive upon almost any form of diet, a new diet before it can prove its worth must regularly produce marked benefit in infants already diseased. It is in this wide tolerance that we must find the explanation of the extraordinary contrasts which appear between the practice in England and in Germany, without the extinction of either race.

In what follows I shall try to describe some of the clinical features of infant disorders which I see here demonstrated every day, and indicate the usual treatment adopted.

I cannot, in a short space, say much of the attempts which have been made to make clear the ætiology of the different conditions and the faults in metabolism, upon the understanding of which the treatment rests. The diagnosis of these conditions is immensely helped by the *daily* weighing of all artificially fed infants, and the weights are recorded upon a curve side by side with the temperature curve. Below stands the record of the amount of food which the infant has had in the twenty-four hours, and its composition.

DIET CHART.



Dyspepsia in feeding with buttermilk + 6 per cent. sugar (subfebrile temperature, loss of weight, foul watery stools). Recovery with small masses of half milk, to which sugar is gradually added.

Infants are fed less often than with us; at first, six times in the day, after about the end of the second month, only five times.

Dyspepsia.—By dyspepsia is meant the common and often trivial disturbance which is accompanied by increase in the number and change in the character of the stools, with vomiting, but without any very marked change in the general condition of the child. It is produced in various ways. It always accompanies any accidental pyrexial infection, as, for example, measles, pneumonia, or pharyngitis. It follows upon contamination of the milk, but even when the milk itself is sound it follows over-feeding, or feeding at too frequent intervals, and it is especially common when too much *sugar* is added to the milk. When mothers look upon sugar as a flavouring agent, and not as a food, it is very common to find an enormous excess of sugar has been given. The weight curve no longer rises; neither, on the other hand, does it show the sudden downward swoop of infantile cholera, nor the steady fall of marasmus. It remains on the average more or less level, but shows often marked daily variations, losing tomorrow what it has gained today. The temperature is usually slightly raised. This slight rise is shown to be de-

pendent upon excess of carbohydrate. It can also invariably be produced by the addition of 2 or 3 grms. of common salt to the diet. This temperature curve helps to distinguish dyspepsia from marasmus, where the temperature is always subnormal, and from infantile cholera or gastro-enteritis, where it is much higher. The stools are watery, often green in colour, contain slime, and have a sour smell of fatty acids. These acids, the result chiefly of carbohydrate fermentation, stimulate the peristalsis of the intestine powerfully, and provoke a much increased flow of alkaline intestinal juice. Hence the stool, which is often acid to litmus, may also at times be alkaline when the intestinal juices are present in great amount. Often the so-called casein balls are present, but, as has been said, the name is founded upon an error. The general condition of the child is one of peevishness. It cries more and sleeps worse. But severe general symptoms are wanting; severe prostration, delirium, coma, wasting, and so forth, are absent.

Treatment.—In slight cases it is often sufficient to withdraw the added sugar from the milk, and from that moment to see the temperature fall, the stools improve, and the weight soon slowly increase (see Chart). In more severe cases a hunger-day is employed. The child receives no milk, but an equal amount of water, which, as a rule, is coloured a faint brown with weak tea, and this is sweetened, not with sugar, but with saccharin. On the second day a small amount, ʒ vi or viii of unsweetened milk diluted to one-half or one-third its strength with barley water, is allowed. Gradually the amount is increased; later ever-increasing amounts of sugar, at first only two grams per diem, are added till the full amount is reached which is suitable for the age of the child. Sometimes it is wise to change the form of the sugar and to substitute maltose for lactose. During the time that such small amounts of milk are given, the fluid requirements of the child are met by the giving of a proper amount of saccharin sweetened water or weak tea. During the time unsweetened milk is given, diluted, the stools are apt to become as described in the next paragraph. The appetite is bad, a symptom which of itself tends to bring about improvement in the milder cases.

Milk disturbances (*Milchnährschaden*).—This form of disturbance has been especially studied by Czerny-Keller. It is a disturbance which is frequently seen among children who are fed upon ordinary cow-milk mixtures, with or without added carbohydrate. The weight curve, instead of the regular daily ascent at a steep angle of the healthy infant, shows a much flatter curve, lagging far behind the normal, often with marked daily irregularities. This condition may persist for many months. The child is pale, small and feeble; the abdomen is distended, sleep is disturbed. The immunity sinks and intertrigo, furunculosis, and so forth become common. The temperature is, on the average, normal, though the diurnal variations are noticeably larger than in health. These symptoms are marked, although a full amount of food is taken. The stools are usually quite characteristic. They are bulky, pale, grey or white in colour. They contrast with the yellow smear, like yolk of egg, of the normal stool in that they remain quite free from the napkin, and curl away from it readily on moving the napkin. Research has shown no deficient absorption of fat, sugar or proteid. The normal amount of fat appears in the stools, only an altogether abnormal proportion of it is found in combination as calcium and magnesium soaps, so that the balance of calcium and magnesium salts in the body is disturbed, and the ammonia coefficient in the urine rises.

The treatment consists in diminishing the amount of fat and increasing the proportion of carbohydrate, taking care in so doing to avoid producing dyspepsia. In severe cases buttermilk with added carbohydrate is a suitable diet. Much of the success of patent foods, which, of course, are extremely rich in carbohydrate and poor in fat, is due to the great frequency of this condition. For a short time the improvement which a child will show upon such a diet is remarkable. A part of this initial increase of weight, however, does not bespeak an increase in growth. It is due to the great increase in the retention of water in the body occasioned by the substitution of a sugar rich and a salt rich diet for a fat rich diet.

Carbohydrate food disturbances (Mehlnährschaden).—Similarly, a clinical group of symptoms has been described as the result of a too exclusive carbohydrate diet. Such children in response to the property of the carbohydrate food to retain water in the body, rapidly put on weight at first. Later, however, the weight tends to come to a standstill. In extreme cases the child may become really atrophied, though the hydræmia may become so great as to hide this and the child become absolutely dropsical. The appearance then is like that of Bright's disease, but the urine remains free from albumen. Such children have an extraordinary tendency to inflammatory complica-

tions of all sorts—furunculosis, bronchitis, tonsillitis—as the results of the lowering of immunity. A characteristic feature is the presence of a degree of hypertonus and muscular rigidity which may be so marked as to suggest tetany, meningitis, or congenital paraplegia. The temperature curve and stools are in no way characteristic. If acute enteritis or dyspepsia supervene, the child's life is in great danger. Treatment consists in the substitution very gradually of cow's milk much diluted for a part of the carbohydrate food. An enormous fall in weight is the result as the condition of hydræmia passes away.

Intoxication.—Finkelstein has given this name to those acute diarrhœal disorders in children in which the clinical picture is ruled not by the alimentary symptoms, though these too are marked, but by severe symptoms of general disturbance. The disease differs from dyspepsia in that the function of the cells of the alimentary canal, and perhaps of the body generally, are so interfered with that these general symptoms of intoxication become prominent. It is the disease which we know by the classical name of Cholera infantum, or by the pathological name of acute enteritis. Finkelstein, to support the claims of the name intoxication, points out how invariable the central symptoms are, coma or delirium, a cry like the cry of hydrocephalus, reflex slow purposeless movements of limbs and jaws, a vacant look, and face of wax mask-like immobility. The urine invariably contains albumen, sugar, and acetone, and the ammonia coefficient is raised. The breathing may be altered and deepened as in the coma of diabetes. The temperature is often very high. The loss of water from the impairment of cell function is so great that in a few days the child may lose a quarter of its weight. There is nothing peculiar about the watery, foul, green evacuations.

Vomiting is a variable feature. The remaining symptoms are too well known to need repetition. The treatment does not differ in essentials from that in vogue in England, but it is for this condition that the proteid milk is especially recommended. In place of the usual hunger day, this milk is given at once in small amounts. The result, so far as I have seen, is the immediate improvement of the stools, which become formed and pale like the stool described under the heading Milk Disturbances.

Marasmus is called decomposition by Finkelstein, for reasons which I cannot quite understand. The diagnosis of marasmus, which is looked upon as a severe and fatal condition, can be made by what Finkelstein calls the paradoxical reaction *upon a full diet.* The weight falls rapidly and steadily, the child becomes progressively weaker, with wrinkled skin and huge hungry mouth and eyes. It is restless, sleepless, fully conscious of its surroundings, and often it appears ravenously hungry. *Upon a greatly reduced diet*—a diet much below that necessary to support life—the fall in the weight curve becomes less steep, and ultimately quite flat. Here also in these desperate cases, success has been achieved by the proteid milk.

Proteid milk is now sold in enormous amounts in Germany, and it has been largely adopted in America. An admirable book by Langstein and Meyer, which embodies the practice of Finkelstein's Clinique, is, I hear, about to be translated in Scotland.

There is much more that is new to me, but I have chosen these examples because they serve to show the practice which is common here in hospitals. Especially I am impressed with the value of plotting out the curve of the daily weighings. It is astonishing how sensitive this curve is, and how often it gives clear warning of an approaching disturbance, which otherwise only shows itself in a little peevishness and crying, which might well escape attention in the ward. Moreover, the rapidity and extent of the loss is of great importance both in diagnosis and prognosis. It is remarkable how great a loss can take place and a part be restored within a single week, a loss the greatness of which would have been unsuspected in the ordinary weekly weighing. The slight differences which result from a change from a salt and sugar poor to a salt and sugar rich diet are at once apparent. The appearance of inflammatory or infectious disorders is marked by a decline in the steepness of the curve, and convalescence by a return to the normal rate of ascent.

H. CHARLES CAMERON.

Berlin, March, 1911.

Chapel News.

During Holy Week the following services will be held in the Chapel: Monday, Tuesday, Wednesday and Thursday, Holy Communion, 7 and 8.45 a.m. Short Service and Address, 8.15 p.m. Preacher, Rev. A. P. Gutch, S. Mary, Lewisham. Good Friday, Litany and Meditation, 7 a.m. Matins and Ante-Communion Service, 9 a.m. Three Hours' Service, 12–3. Conducted by the Rev. A. P. Gutch, S. Mary, Lewisham. Service of Bach Passion Music, 8 p.m. Easter Day, Holy Communion, 6, 7, and 8.45 a.m.

The Rev. C. A. S. Luxmoore-Ball, who has held a curacy at St. Andrew's, Croydon, for the last four years, has been appointed Assistant Chaplain to the Hospital.

Obituary.

Peter Mills.

Born, 1839—Died, 1911.

Generations of old Guy's men will hear with sincere regret of the death of Mr. Peter Mills, which took place on the 15th of last month. As librarian at the hospital for the last twenty-three years, Mr. Mills was well known to nearly all living old Guy's men, and he in his turn knew all of them, and all about their hospital and subsequent careers. For the last few years Mr. Mills had suffered at intervals from attacks of bronchitis with heart trouble, and in October of last year it became necessary for him to lie up at home. He never returned to the hospital, and died on March 15th. During the last few months much of his work had been done under great physical disabilities, but he kept bravely to it, and retained his mental activity and his old dry humour up to the last.

Mills had had a varied and adventurous career before he came to Guy's as librarian. He was born in 1839 at a small place, probably Douglas Mills, on the south bank of the Clyde, a few miles from Glasgow, in which city he was educated. It is of interest to note that in order to reach the school he attended, which was some miles from his home, he and a friend entered into the old Scottish contract to "ride and tie." After leaving school he was for a time with an architect, but he abandoned that profession and joined the Royal Military Training College at Chelsea about 1858. At the end of his training, in 1862, he was appointed to the 55th Foot Regiment (Border Regiment) as an Army schoolmaster, and left England for some years on foreign service.

During these years he was for a time at Aden, and was also at St. Helena during the days when the slave traffic was still active, and the island was the headquarters for British warships engaged in suppressing it. While in St. Helena, Mills earned the sobriquet of "Boney" owing to his fondness for visiting Napoleon's grave, and the name clung to him until his death. He became acquainted with several people who had known Napoleon personally. He may truly be said to have taken an active part in journalism on the island, for, after forcibly ejecting his predecessor, who had too great a partiality for strong drink, he undertook the entire management, including editing and printing, of a newspaper.

But most of his life as an Army schoolmaster was spent in India, which country he reached just after the Mutiny. There he saw something of active service on the Afghan frontier, and still more of the terrible ravages of the cholera, and was himself attacked by that disease. He spent much of his time in shooting, and had a few experiences with big game, some of them unsought, as on one occasion when he was strolling on the outskirts of the jungle, unarmed, except for a light cane in his hand: suddenly he became aware that, separated from him only by a hedge, was a large tiger. However, as he used to say in telling the story, "the tiger apparently was not hungry, as, although it looked at me, it turned and lounged off through the jungle," but not before Mills had suddenly remembered an important engagement in the opposite direction.

Mills retired from the Army in 1887, after having served for twenty-five years with the 55th Regiment, the Royal Horse Artillery and the Ordnance Store Corps. He possessed the medal for long service and good conduct.

In December of the same year he was appointed Librarian of the Guy's Medical School. There were 300 applications for the vacant post in response to advertisements in the papers, and these were analysed by Dr. (now Sir Cooper) Perry, who had recently become superintendent. As a result, six candidates were selected to appear before the Library Committee, and of these Mr. Peter Mills was chosen by the Committee at their meeting on December 28th.

From that time onward Mr. Mills was a faithful and valued servant of the Medical School. As Librarian he was marked by unfailing courtesy and readiness to help anyone in search of some particular subject. He was never at a loss for the source of a Shakespearean quotation, and his knowledge of the classics was often of use to readers who came across some phrase beyond their powers of translation. Mr. Mills also did a large amount of work in connection with the Gazette, especially in compiling the regular lists of "Papers by Guy's Men," and for this his extensive acquaintance with the names of old Guy's men was very valuable. In the year 1902 when the Wills Library was built, Mr. Mills and his volumes changed quarters. During the last few years of his life, he was busily engaged in compiling a catalogue and a card index of the contents of the Library.

As a man and as a librarian his quiet dignity made him respected by all students of the hospital, and to some few, who were privileged to know more of his dry humour, his tales of his experiences in India and elsewhere, and his shrewd comments on men and things, it is not too much to say he was endeared. Many old Guy's men, on revisiting the hospital, will find his absence from his familiar place in the library one of the most noticeable of many changes which meet their eyes.

His private life Mr. Mills spent quietly with his family. He was modest and retiring, and never could be prevailed upon to face a photographer; otherwise this notice would have been illustrated by his portrait.

"Marie Claire."*

What secret spell, we may ask, has given this book its unique position? It has delighted thousands of readers in France, and now a good English translation opens its pages to all who would make the acquaintance of the book and its writer. They are one—"Marie Claire" is Marguerite Andoux.

With great simplicity and charm, and with no pretensions to any literary style, and in the most simple language, the early life, thoughts and experiences of a very human heart and mind are set forth for our pleasure and instruction. A lonely child, soon parted from her few relatives, of very limited education, and yet eager to grasp any opportunities of reading that came in her way, she all unconsciously turned her sympathetic intelligence upon the men and women among whom her lot was cast, and also to a remarkable degree upon her natural surroundings. Trees and flowers, winds and snow, the grey and chill of autumn fogs, or the sunshine on little brooks, were to her charged with a deep and poetic meaning, not to be separated from the emotions of joy, fear, and poignancy of parting in the lives of human beings.

Some ten years ago Marguerite Andoux, as a girl of about 18, arrived in Paris to earn her living as a sempstress. A turn in the wheel of fortune brought her the friendship of a circle of young literary men and women. Her singleness of heart, depth of purpose and intellectual ability were accepted with appreciation. In course of time the mutual interest of all in books and their making induced her to read to her friends the early chapters of her MSS. They had been written, without thought of publication, to fill moments of leisure, satisfying what was to her a purely natural craving for expression. That an exceptional talent was thus revealed was at once apparent to her audience. Under their encouragement short tales and sketches were written, and after some years of work the book was finished and published under most favourable circumstances.

To-day, Marguerite Andoux is living in her usual simple retirement. We may look for another book describing her life in Paris, an event which will give pleasure to all who have loved "Marie Claire."

To turn to the book itself, "Marie Claire's" first memory was that of seeing "my mother had a big lighted candle by her bedside. My father was leaning over the foot of the bed looking at my mother. She was asleep, with her hands crossed on her breast."

Shortly after, life seriously began for her at a convent school or orphanage. The first part of the book vividly portrays the years spent in this institution, and in spite of childish sorrows and misunderstandings it was to this place that "Marie Claire" turned, as to a home, in an hour of desolation and sorrow. With wonderful insight this child realised the characters of her companions and the Sisters who taught and tended them, the servants, and all in connection with the establishment. The great truth of the book that justice, sympathy and love can alone bring light to our lives, and that their absence is darkness indeed, is taught by every incident of these early pages. The guiding star of "Marie Claire's" life arose here—Sister Marie Aimée. Safe under her protection from the harshness of others, the child said, "all around me I heard the world living," and in after years she said, "Oh, Mother Marie Aimée, how beautiful you were, and how I loved you. How your many-coloured eyes beamed and lit up your black dress, and how pure your face was under your white cap. I could see you as clearly as though you were really in front of me."

One penetrating and remarkable saying of Sister Marie Aimée's should be quoted. This woman's sympathies were quickened by her own experiences. Could it be otherwise? In a moment of despair she cried, "Our dress of black and white tells others that we are creatures of strength and brightness. At our bidding all tears are dried, and all who suffer come to us for consolation, but nobody thinks of our own suffering. We are like women without faces."

The second part of the book, to many the most beautiful, gives the history of "Marie Claire's" life on the farm at Sologne. As servant and shepherdess she studied the animals under her care, and during many lonely hours she had no companionship but in her communion with nature. It is difficult to quote when all should be read, but there is a fine description of a wood with moonlight, wind and shadows, through which the child escaped one night when the longing to see Sister Marie Aimée overcame her. Of the harvesting she says, "it seemed to me as though I were taking part in something full of mystery; men went up to the corn and laid it on the ground with regular sweeping strokes, while others picked it up again in sheaves. The cries of the harvesters seemed to come from above sometimes, and every now and then I looked up quickly, expecting to see golden corn-laden chariots fly past above my head."

"In the month of December . . . all the birds had gone. Mist spread over the ploughed fields, and the woods were full of silence. There were days when I felt so lonely that I began to believe that the world had all fallen to pieces around me, and when a crow cawed as it flew past in the grey sky, its great hoarse voice seemed to me to be singing of the misfortunes of the world. Even the sheep were quiet."

A beautiful incident is the account of her friendship with Jean le Rouge, his wife and their children. The mother's face bore deep burn marks, the result

* "Marie Claire," by Marguerite Andoux. (Chapman and Hall).

of an accident when a child, which had left her dumb. "One got accustomed to it, and remembered nothing of her face but the mouth with its white teeth and her eyes, which were never still." In their deserted home, among the broom and the old fruit trees, "Marie Claire" built her altar to love; under the same trees, bare and leafless, Henri Deslois told her he could no longer be her friend, and rode away across the snow, leaving her standing alone.

The book closes with the commencement of the journey of Marguerite Andoux, or "Marie Claire," as you will, to Paris. "The train whistled once, as though to warn me, and, as it moved off, it whistled a second time, a long whistle like a scream."

S.

Appointments.

Civil.

Carter, H. H., M.B. Lond. Certifying Factory Surgeon for the Northallerton District, Yorkshire.

Howard, C. R., M.D., B.C. Cantab., M.R.C.S., L.R.C.P. Medical Officer of Health to Frome (Somerset) Rural District Council.

Reeve, H. M., M.B. Lond. District Medical Officer, Rochford Union.

Robinson, G. C. F., F.R.C.S. Eng., L.R.C.P. Lond. Honorary Assistant Surgeon, South Devon and East Cornwall Hospital, Plymouth.

Steele-Perkins, D. S., L.R.C.P. & S. Edin., L.F.P.S. Glas. Medical Officer Farway and Northleigh Districts by the Honiton (Devon) Board of Guardians.

Papers by Guy's Men.

A. E. Boycott, M.A., D.M. Oxon., Lecturer on Pathology, Guy's Hospital: "The Milroy Lectures on Ankylostoma Infection." Lecture I. Delivered before the Royal College of Physicians, London, on March 2nd, 1911.—*Lancet*, March 18th, 1911.

Also: Lecture II.—*Lancet*, March 25th, 1911.

A. E. Maylard, M.B., B.S., Surgeon to the Victoria Infirmary, Glasgow.—"The Treatment of Appendical Abscess with Pure Carbolic Acid and Iodoform."—*British Medical Journal*, March 25th, 1911.

Albert Churchward, M.D. Brux., M.R.C.P. Edin., M.R.C.S. Eng.: "Treatment of Rodent Ulcer by Calcio-Phosphate of Uranium."—*Lancet*, March 11th, 1911.

R. P. Rowlands, M.S., F.R.C.S., Assistant Surgeon to Guy's Hospital: "Remarks on Hour-Glass Contraction of the Stomach."—*British Medical Journal*, March 25th, 1911.

Philip Turner, M.S. Lond., F.R.C.S. Eng., Assistant Surgeon to Guy's Hospital, and H. C. Catto, M.R.C.S. Eng., L.R.C.P. Lond., Assistant Bacteriologist, Guy's Hospital: "The Iodine Method of Sterilising the Skin."—*Lancet*, March 18th. 1911.

United Hospitals Hare and Hounds.

The annual inter-hospital cross-country match took place last Saturday, March 25th, at Blackheath. Guy's and London were the only hospitals to send down a full team. The course was seven miles, and the race resulted in Guy's securing the cup for the third successive year. J. R. Barrow-Clough ran in his usual style, and credited Guy's with first man home. A. Parry Price must also be congratulated on his fine performance, for without him we should have lost th cup. More ought to be seen of him next season.

Referee: Dr. H. A. Munro.

	M.	S.
1. J. R. Barrow-Clough (Guy's) ...	45	1
2. W. K. Fry (Guy's)	45	10
3. E. L. Hopkins (London)	45	12
4. A. G. Holman (London)	45	30
5. A. G. Parry-Price (Guy's)	46	20
6. P. Allingham (London)	47	10
7. A. D. Stammers (London)	49	2
8. C. R. Reckitt (London)	49	50
9. W. H. Alderton (London)	50	29
10. A. Sigg-Hoblyn (Guy's)	51	40
11. B. B. Saulter (London)	52	5

Team Placings.

Guy's Hospital, 1–2–5. Total points, 8.
London „ 3–4–6. „ 13.

Pupils' Physical Society.

The final meeting of the Winter Session was held at 8 p.m., on Friday, March 17th, in the College Smoking Room. Mr. Symonds occupied the chair. Fifty-five members were present,

The Chairman then announced that the Treasurer's Prize had been awarded to the candidate whose paper bore the motto "Altiora peto." This proved to be Mr. A. Sandison, who then read his paper on "Rheumatic Fever in the last Decade." In the subsequent discussion the Chairman, Dr. Fawcett, Dr. Goodhart, Messrs. Marshall, Poulton, Bennett, Sherris, and the senior honorary secretary participated.

The Chairman then further announced that the two other papers submitted were of such a high standard that he wished to present a book prize to each of the two authors, who were Messrs. T. I. Bennett and W. T. Chaning-Pearce. The three customary prizes for the Session were awarded as follows:—

1. The prize for the best specimens exhibited, to Mr. E. P. Poulton.

2. The prize for the best paper read, to Mr. A. H. Todd, for his paper on "Parotid Tumours."

3. The prize for the Member who most distinguished himself in the discussions, to be divided between Messrs. F. Cook, and E. G. Schlesinger.

A vote of thanks to Mr. Symonds for taking the chair was proposed by Dr. Rippmann and carried with enthusiasm. The meeting then adjourned.

Adenoids.

CLINICAL LECTURE BY Mr. F. J. STEWARD, M.S.

Gentlemen,—I propose to-day to go over some points about adenoids, and will endeavour to answer certain questions about them. In the first place, What are adenoids? This seems to many of you, I have no doubt, almost a superfluous question, but there is a good deal of misunderstanding about the point, adenoids even now being often thought to be a new formation.

"Adenoids" is the term applied to a pathological state of the normal structure, which is known as Luschka's tonsil. In the naso-pharynx there is a structure consisting of practically the same tissue as the faucial tonsil, *i.e.*, lymphoid tissue covered over with mucous membrane, and this is known as Luschka's tonsil, or the post-nasal tonsil. It is a normal structure which is present at birth. It is oval in shape, and in consequence of the presence of sulci is divided up into a number of lobules. I show you a drawing to represent it. The long axis is longitudinal, and the sulci run mostly in the longitudinal direction. There is usually one sulcus deeper than the others, so that it almost divides the tonsil into two, and as a result the tonsil is often in two portions when removed. For a certain time after birth this tissue appears to increase in size, relatively to the size of the naso-pharynx, reaching its greatest relative size between the fourth and the sixth year. From that time it diminishes in size, just as do the faucial tonsils and other lymphatic structures in the body, so that by the time of the tenth or twelth year there is usually very little of the post-nasal tonsil left, and by adult age nothing but a small pad or cushion remains.

The next question, which arises naturally out of the first, is: As Luschka's tonsil is a normal structure, when does it become pathological and constitute what is known as adenoids? The answer to that is, that it becomes pathological when it interferes with the normal functions of the nose and naso-pharynx. And that leads to the next question: How does Luschka's tonsil interfere with the normal functions of those parts? Supposing it is larger than it should be—and apparently it easily does become too large, although the cause of the initial enlargement may be difficult to make out—it is clear that it may easily produce *nasal obstruction*. That is the main effect of Luschka's tonsil when enlarged. The main symptom, then, is nasal obstruction, and the effect of that in a growing child is shown in various ways. Firstly, there are certain *mechanical* results. You can see from this picture on the screen how easy it is for this enlarged tonsil to cause nasal obstruction. In the healthy growing child respiration takes place normally through the nose. As far as one can tell, one result of nasal respiration is, that it acts as a stimulus, which helps to bring about the normal development of the nose, nasal fossæ and the bones of the face generally. But if obstruction is present that stimulus is withdrawn, and so the changes due to that stimulus no longer take place. This will explain a very common set of conditions which you see in adults. In them there is a small nose and naso-pharynx with no obvious cause, the condition being no doubt due to their having had adenoids in childhood, which have since disappeared. In certain directions this failure of development is particularly well-marked, especially as regards the palate and jaws. The air passing through the nose tends as it were to push down the palate, on the other hand, when the patient is breathing constantly through the mouth instead of through the nose, there is an air pressure which constantly tends to keep up the roof of the mouth, and so those high palatal arches with prominent alveolar margins are produced. I show you the photograph of a boy who had well-marked adenoids, and he shows some of the facial characteristics resulting from them. Notice his mouth is open; he cannot shut it, because of the nasal obstruction, which prevents him breathing through his nose. His face is long and narrow, and the malar bones do not project, because the nasal fossa is narrow, and the malar processes have not been pushed out. The lower jaw is narrow and comes to a point, because the mouth is kept open, and there are those marked changes inside the mouth which I have mentioned.

The second group of symptoms I classify as *inflammatory*. One effect of nasal obstruction is to cause a negative pressure in the nose and naso-pharynx, which results in the production of congestion and catarrh. Whether due to this negative pressure or not, there is some change in the mucous membrane of the nose

and naso-pharynx, which results in a diminution of its normal bactericidal power, and in consequence of that children with adenoids develop nasal and post-nasal catarrh. Every time they get a cold there is some chronic hypertrophy of Luschka's tonsil left, so that the condition tends to get worse. In other words, there is a vicious circle set up. Another inflammatory result of the presence of adenoids is the spread of this catarrhal process from the naso-pharynx to the Eustachian tubes, and so to the ear, producing otitis media, either acute or chronic. Then there are more *indirect* results, due not so much to the adenoids directly as to the resulting nasal obstruction. If you think what the normal nose does, you will understand how these results are produced. Normally, the air, by passage through the nose, is sterilised, that is to say, the mucous membrane of the nose exercises a marked bactericidal function. Secondly, the air is warmed (or, if necessary, cooled) to the body temperature. Thirdly, it is filtered of particles of dust, and fourthly, it is moistened to the requisite extent. If there is nasal obstruction caused by adenoids, and in consequence the child is breathing through its mouth, the air so breathed is too dry, too cold, and is laden with dust and micro-organisms, and in consequence various inflammatory processes are set up. There is, first, tonsillitis, because the organisms which are carried into the mouth are caught by the tonsils, and inflammation is set up there. This may again lead to infection of cervical lymph glands, which may become tuberculous. Pharyngitis is also produced in the same way, either infective or mechanical, due to the desiccating effects of dry air, or by breathing dust which should have been filtered from the nose. In the same way, laryngitis, tracheitis and bronchitis may be set up, and, finally, infective diseases of the lung itself, such as phthisis.

Finally, there is another set of symptoms which may be classified as *reflex*. But here we are not on such firm ground as with regard to the others. All sorts of symptoms are described as reflexly due to adenoids in children. Perhaps you will not hear so much of those now as was the case years ago, owing to the fact that mistakes which I will refer to presently are less frequently made than when attention was first directed to adenoids.

There are night terrors, which may be the result of bad dreams caused by partial asphyxia. What happens in the case of night terrors is, that the normal tendency to breathe through the nose asserts itself when the child is asleep, and although there is nasal obstruction the tendency to breathe through the nose is strong. As a result there is partial asphyxia, which wakes the child up in terror.

Another condition which is sometimes referred to as reflex in association with adenoids, is *nocturnal incontinence*. It is conceivable that partial asphyxiation also causes the involuntary passage of urine. But it is important to remember that nocturnal incontinence in any given case is not necessarily due to adenoids; and before coming to that conclusion there should be other well-marked signs of adenoids.

Some years ago I had a case which serves to illustrate this point. It was in the out-patient department of Great Ormond Street Hospital. A child was sent with a note from a doctor, requesting me to remove adenoids because the child had nocturnal incontinence. I asked the mother certain questions, from the answers to which I concluded that there was not marked nasal obstruction. On further questioning, it became also clear that there was pain on micturition, and there was some involuntary passage of urine in the daytime, as well as at night. On passing a sound I found there was a fairly large stone in the bladder.

Another so-called reflex result of adenoids is *epilepsy*. Some years ago a great deal was heard about this, and it was hoped that by the removal of adenoids, epileptic children would be cured. A number of cases certainly have improved after the operation, but it is doubtful whether there is any direct association between the two conditions. More probably the improvement in general health brought about by the removal of the adenoids has helped to diminish the epilepsy.

Having decided what results adenoids may produce, the next question is, How can they be diagnosed? In other words, how can you find out that they are the cause of the symptoms? You should look at each individual case from two points of view. You hear the history of the case, and in conjunction with this you must take the result of your examination of the naso-pharynx. If a child is brought to you because it cannot breathe through its nose, makes a noise at night, sleeps with its mouth open, has sore throat and frequent colds, when it gets colds it is liable to deafness or has an attack of earache or a discharge from its ear, you can be fairly certain that it has got nasal obstruction.

Then with your finger you can feel whether there are adenoids. There is a right way and a wrong way of carrying out digital examination of the naso-pharynx. The patient sits in a chair, and the examiner stands at his back. If the child is small I have him standing in front of me, the head resting against my thigh. The right forefinger is used for the examination, and the left hand in supporting the child's head, the fingers of that hand pressing the lips and part of the cheek between the child's teeth. That is a satisfactory way of protecting your own finger, and it acts as an efficient gag. In an adult you can see the adenoids by examining with a post-rhinal mirror, as shown in this diagram.

Having made your diagnosis, the next point is the *treatment*. You have to decide whether an operation shall be done to remove the adenoids, or whether you will try palliative treatment. That must depend upon the severity of the symptoms. If it is clear that there is marked nasal obstruction, and there is a large mass of adenoids in the naso-pharynx, it is always wise to remove them, especially if the child is about 6 or 8 years of age, because at that age you can hope to remove them once for all, and have no further trouble. Another very strong indication for immediate operation is the presence of ear trouble, deafness, attacks of ear-ache, or suppuration. Operation in such a case may prevent an attack of suppurative otitis, with all its attendant evils. If, however, the case is a slight one, palliative treatment should be adopted.

Many children who have symptoms of adenoids improve if their general health is improved, and one drug, arsenic, seems to be very beneficial, and we usually combine that with iron, with, if the patient is thin, cod-liver oil.

With regard to the operation for removing adenoids, the child is prepared in the ordinary way and given an anæsthetic. The operation can be done quite well without an anæsthetic, and I prefer in some cases to do it without, because the risk is less, the bleeding is less, and recovery takes place more quickly. But no one who has not had considerable practice in performing the operation should do it without an anæsthetic; it would neither be fair to the child nor to the operator. After the child is under the anæsthetic the gag is placed in the left side of the mouth, and you then should examine the naso-pharynx with the finger again in order to estimate the exact size, shape, and position of the mass to be removed. The child is now turned into the right lateral position, which I prefer to the dorsal, because bleeding is less and the manipulation easier than with the head hanging; moreover, the blood collects in the cheek and is easily wiped away. The instrument I always use for the operation is Kirstein's modification of the original Gottstein curette, the larger penetration making it easier to remove the whole mass in one piece. St. Clair Thomson's curette is perhaps easier to use and ensures the adenoids being safely delivered from the mouth, but owing to its shape its action is not quite so thorough as Kirstein's curette. Forceps are now little used for the removal of adenoids; they are undoubtedly dangerous.

Now, as regards the actual operation, the operator stands behind the patient's head and holds the curette like a dinner knife, with the index finger along the back.

Having passed the curette into the naso-pharynx, the handle is slightly depressed and drawn forwards until the blade is felt to gently touch the back of the nasal septum. This clearly proves that the curette is in the proper position. The instrument, being carefully kept in the mid-line, is now pushed firmly upwards and backwards. The mass to be removed is thus engaged in the fenestrum, the edge of the blade being now in contact with the roof of the naso-pharynx. Still pressing backwards, a firm sweep is now made along the roof and posterior wall of the naso-pharynx, and the adenoids thus removed.

It is often recommended to now pass the index finger into the naso-pharynx and complete the operation with the finger nail. This is quite unnecessary, and, moreover, is not particularly conducive to aseptic healing, which is so necessary if suppurative otitis and glandular abscesses are to be avoided.

In many accounts of this operation stress is laid upon the importance of removing adenoids from the Eustachian tubes and the margin of the posterior nares. No doubt the mucous membrane of these parts contains lymphoid tissue, the nodules of which may be in some cases enlarged, but it is quite clear that the symptoms for which the operation is performed are not caused by these outlying nodules, and there is no need to interfere with them. If the main post-nasal tonsil is properly removed, and the nose and nasopharynx subsequently developed by suitable breathing exercises, the result, in all but a very few exceptional cases, will be all that can be desired.

The Cerebro-Spinal Fluid.

A paper read before the Guy's Physiological Society by A. J. E. SMITH.

The first good account of the cerebro-spinal fluid was given in 1825 by Majendie. His description I have translated, not because I doubted your knowledge of the French language, but because no one on earth could understand my pronunciation of it.

"Between the pia mater and arachnoid," he says, "there exists a liquid which I propose calling the cerebro-spinal fluid. It is found in man, and in all mammals. It serves to fill the gap which would otherwise exist between the brain and osseous cranium; it is renewed rapidly, and circulates between the cerebral ventricles and the subarachnoid spaces of the brain and spinal cord. At the moment of expiration the brain swells, and the cerebro-spinal fluid passes from the cranium into the vertebral canal. When the liquid is subjected to increased pressure, the phenomena of paralysis ensue; when, on the other hand, the escape of fluid is assisted by an opening, the brain and medulla are no longer protected, and there ensues a general weakness and feebleness of the animal."

Since the time of Majendie, the introduction of lumbar puncture as a method of diagnosis, the use of spinal anæsthesia, and the application to the cerebro-spinal fluid of the Wassermann reaction, have shown the enormous importance of the subject, and produced a lot of recent work and fresh evidence upon it.

Before considering the composition, origin, functions, etc., of the fluid, it is necessary to have some idea about the contents of the cranium, their relation to one another, and the outside world of the body. The brain has been aptly compared to a limb enclosed in a plethysmograph, or a kidney in an oncometer. The cranium, with the periosteal dura, forms the oncometer proper; the blood in the venous sinuses and cerebral veins, together with the cerebro-spinal fluid, corresponds to the oil. Every pulsation of the arteries entering at the base of the brain is transmitted through the brain substance, through the cerebral veins and venous sinuses, to the cerebro-spinal fluid, and also to the internal jugular veins. This latter fact was first observed by Cramer, and afterwards by other observers, who cut the internal jugular and watched the bloodflow. But not only do the brain and its surrounding fluids pulsate with every arterial stroke, but at every expiration the blood is dammed back in the jugular veins, which transmit the increased pressure to the lateral sinuses.

We see, then, that the oil in our cranial oncometer transmits two pulsations in opposite directions: one, the arterial pulse, at each cardiac systole; and the second, the respiratory venous impulse, at each expiration. The rise of intracranial pressure corresponds, then, with the expiratory phase, and not with the general inspiratory rise of pressure. Now, during life the cranial contents entirely fill the cranium. If, then, the blood content of the cranium be increased, as during expiration, either the brain substance or the cerebro-spinal fluid must leave the cranium. That it could be the former seems almost ridiculous; that it is the latter is proved by experiment. But before giving the evidence for all my hitherto assertions, there is one more point which needs clearing up, and about which the text-books seem rather vague.

The cerebro-spinal fluid is described as being enclosed between the arachnoid and pia mater, and, of course, there is some in that situation, especially in the basal cisterns; but the fluid is by no means confined to the subarachnoid space. The subarachnoid and subdural spaces are physiologically one. Fluids can pass from one to the other when the difference of pressure on the two sides of the intervening membrane is very small. It was only by most careful injection of coloured gelatin at very low pressure that Key and Retgius succeeded in demonstrating their anatomical individuality

The following experiment, which illustrates most of these points, is quoted from Dr. Leonard Hill:—

Dog. Morphia.

Cerebral venous pressure in torcular Herophili, 108 mm. Hg.

Pressure of cerebro-spinal fluid measured at posterior occipito-Atlantal ligament, 108 mm. Hg.

Saline injected at the occipito-Atlantal ligament, or through a trephine hole in the parietal region was absorbed from the cranio-vertebral canal at a pressure just above 108 mm. Hg.

The excised dura mater allowed water to trickle through at a pressure of only 70 mm. Hg.

This experiment illustrates three points:—

1. The cerebro-spinal fluid is normally under the same pressure as the cerebral venous blood.

2. It cannot exist in the cranium at any pressure above this.

3. That at a very slight pressure it can pass through the strong dura; and at a smaller pressure still through the finer arachnoid.

It follows also that, if fluid can pass with this ease through the dura, when the great expiratory rise of venous pressure occurs, serum could exude from the venous sinuses into the subdural space.

To review our facts so far, we see that at each expiration the cerebral venous pressure rises; there is possibly some transfusion into the subarachnoid-dural space; the increased pressure in the latter forces the cerebro-spinal fluid into the vertebral canal. The effect of the arterial variations in pressure is normally less marked.

The next point to be considered is the composition of the cerebro-spinal fluid. It is a clear liquid,

specific gravity 1006—1008. It is slightly alkaline. It contains about—

1% solids.
·1% protein.
·8% or less salts.
·12—·25 dextrose.

The salts include sodium chloride, carbonates and phosphates, with a relatively high percentage of potassium. Urea is also found occasionally. The fact that the reducing substance found is dextrose was first asserted by Claude Bernard, but since then Halliburton denied this, and said that the substance was pyrocatechol or an allied compound. The substance reduces copper salts, gives an osazone melting between 205°C. and 206°C., is dextro-rotatory, and ferments with yeast, and, therefore, finally is dextrose.

We see from the above that the cerebro-spinal fluid differs widely from the lymph: *e.g.*, ·1% protein against at least 3% in the most dilute lymph, or about 7% in blood plasma. The sugar content, again, is about one-fifth that of blood serum. The fluid is normally devoid of corpuscular elements.

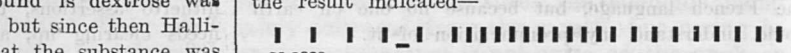
Moreover, in the combination of CO_2 in lymph and cerebro-spinal fluid we find an interesting difference.

	Parts per 100 CO_2.		
	Lymph.		C. S. fluid.
By vacuum and heating ...	46	...	10
By acid and heating in vacuo	50	...	50

The difference in the two figures gives the amount of CO_2 in stable combination 40 parts per 100 in cerebro-spinal fluid; 10 parts per 100 in lymph.

We see, then, that the composition of the fluid compels us to look upon it as a secretion, and not a serous transudation. It is true that the fluid analysed was mostly obtained from meningoceles and other pathological conditions, but that does not alter the low percentage of protein. Moreover, Michael Foster noticed that the injection of normal saline gave a slight increase in the rate of flow, but that raising the arterial pressure by other means failed to do so. And since he performed these experiments, we have proof which is, apparently, conclusive that the cerebro-spinal fluid is a secretion, and not a mere serous transudation.

Source of cerebro-spinal fluid.—Willis, in 1664, first mentioned the glandular appearance of what we now call the choroid plexus. Petit and Girard, in 1902, were the next observers to make any real advance. They showed that changes, like those produced in the salivary and other glands, could be brought about in the choroid plexus by the administration of certain substances. The most recent and, I think, the most conclusive evidence, on the physiological side, is furnished by the experiments of Halliburton and Dixon. The experiments are, I believe, still continuing, but a preliminary mention of them was given in the *Journal of Physiology*, part iii., vol. 40, 1910. They inserted a cannula into the subcerebellar cistern. There was an immediate gush, followed by a slow dripping of fluid, about one drop in fifteen seconds. They found that any acceleration of respiration gave rise to a lessened, any slowing of respiration, *e.g.*, that produced by chloroform, to an increased rate of flow. For this latter reason they anæsthetised the dog with urethrone and morphine, and performed regular artificial respiration. They then injected a saline extract of choroid plexus, with the result indicated—



There is, apparently, a latent period of about 17 seconds. The blood pressure falls slightly and temporarily, as is the case when most tissue extracts are injected. In the experiments where artificial respiration was not used, respiration was accelerated.

These experimenters use a 1% extract of plexus. 5 cc. for each injection, which is made into the femoral vein. They find that a second injection gives no result unless an interval of ten or fifteen minutes has elapsed since the first injection. They have used extracts from ox, sheep, and man, sometimes fresh and sometimes dried. The active substance withstands boiling, and is soluble in both dilute and absolute alcohol. An extract of brain gives a much smaller, but still a noticeable increase in secretion.

They have also tried, but with no result—distilled water, adrenalin, pituitary extract, cerebro-spinal fluid, sodium chloride, and other salts, most of the so-called lymphagogues, and various extractives of brain. It will be seen that, with many of these, *e.g.*, adrenalin and pituitary, the blood pressure must have been raised considerably. The fact that no increased secretion was caused by sodium chloride seems to contradict the before quoted experiment of Michael Foster.

On the histological side it has been shown that the choroid plexus has the appearance of a typical secreting gland, the epithelial cells presenting a great similarity to those of the lacrymal gland. Moreover, when we compare the choroid plexus with other structures that are acknowledged to be secreting glands, we find a very interesting clue to its functions. It seems to occupy a position halfway between the glands with an internal, and glands with an external secretion.

It is then proved conclusively that the choroid plexus secretes something. Is that something what we call the cerebro-spinal fluid, or is the fluid obtained by lumbar puncture, etc., choroid plexus secretion contaminated by serous transudation or brain waste products? That this latter is the case is indicated by the fact that, after repeated tappings of large meningoceles, the character of the fluid changes; the protein content approaches more nearly to that of lymph, but never quite reaches it. We can imagine what happens in these cases. There is a serous transfusion and a choroid plexus secretion, both taking place at the same time. The fluid first drawn off

contains a relatively large amount of choroid plexus secretion, After the first tapping, the choroid secretion cannot keep pace with the serous transudation, and up goes the protein content. But even the first tapping is not pure choroid secretion. We see then that the fluid is being slowly but continually secreted; is being expelled from the cranium at each expiration or whenever its pressure rises above that of the cerebral venous pressure. It must go somewhere, what then is its destination?

It was at first thought that the fluid followed the course of the perineural lymphatic channels of all the nerves, and, reaching the thoracic duct, so got after a considerable interval to the veins. The channels round the olfactory nerves were especially indicated. Hill and others have, however, shown that the fluid can escape by way of the veins directly, and that substances, *e.g.*, methylene blue, appear in the urine about twenty minutes after injection into the subarachnoid space, while the deep cervical glands are not tinged with blue until about an hour has elapsed. A non-absorbable gas introduced into the subarachnoid space was found by some observers to produce death by embolism, while the thoracic duct showed no gas. We see then that fluid in the subarachnoid space can pass into the venous circulation either directly *via* the venous sinuses, or indirectly by the lymphatics of the nerves.

There is, however, a third mode of escape that the cerebro-spinal fluid can adopt, and this seems by far the most important. Each cerebral arteriole carries with it into the brain substance two sheaths, one continuous with the arachnoid, which is the inner or so called "adventitial" sheath, and an outer finer "periadventitial" sheath, continuous with the pia mater. The inner sheath terminates where the arteriole breaks up into capillaries, the outer and finer sheath is continuous with the lining of the so-called perineuronal space which exists round each nerve cell.

These sheaths are of course very difficult to make out, but they have been studied by Dr. Mott in the brain of monkeys whose cerebral arteries had been ligatured by Dr. Hill. The brain was thus rendered anæmic, the arterioles collapsed and the sheaths were distended with fluid. In one of the experiments picric acid and perchloride of mercury were used as fixatives, and yet the fluid in these sheaths showed no coagulation. It was not then an ordinary serous transudation, but a liquid poor in proteins, in spaces continuous with the subarachnoid and subdural spaces, and was without doubt the cerebro-spinal fluid.

These facts seem to be borne out by the appearances presented in certain pathological conditions, especially in the case of sleeping sickness; here the cells forming the walls of the sheaths proliferate enormously, and the sheaths round the arterioles are well seen. By the injection of various substances, such as methylene blue and iodine, Key and Retzin, Jacobs and others, have shown that the subarachnoid and perineuronal spaces are in anatomical and physiological communication.

Against all this it may be urged that drugs and bacterial toxins administered by the mouth do not pass into the cerebro-spinal fluid. It has been shown, however, that the direct injection of poisons into the cerebro-spinal fluid produces far more marked symptoms than subcutaneous injection of the same poisons. The evidence seems to show, therefore, that substances can pass from the cerebro-spinal fluid in the subarachnoid space into the perineuronal lymph spaces. We have seen also that substances in the subarachnoid space can pass into the blood stream, but that drugs injected intravenously do not easily pass into the cerebro-spinal fluid. There must, therefore, be some middleman between the blood and the brain cells. This fluid intervening between the blood, on the one hand, and the brain cells, on the other, is contained in the perineuronal channels, which, as we have seen, are directly connected with the subarachnoid space, and do not contain ordinary lymph but the cerebro-spinal fluid. Now it is clear that between this fluid and the blood in the capillary we have only the cells lining the capillary.

How then is it that substances in the blood-stream do not easily pass into the cerebro-spinal fluid and spaces round the brain-cells? This is not at all easy to understand, but from what we have seen of the chemical composition of the cerebro-spinal fluid—especially its high content of CO_2 in stable combination and its lower sugar content as compared with lymph and serum—it may be explained on osmotic principles, or, if not, we may have to drag in our *deus ex machina*. namely, a selective action on the part of the capillary epithelium.

It has been suggested that the sugar and perhaps certain salts may pass from the blood to the cerebro-spinal fluid, while the CO_2 and water pass into the blood. Dr. Mott has tentatively suggested that the sugar so taken up by the cerebro-spinal fluid may be broken down by a glycolytic ferment produced in the brain cells, and so produce the energy of nerve action. For this there is, as he says, no evidence as yet, but it is a significant fact that Cavayzani describes a glycolytic ferment in the cerebro-spinal fluid from a hydrocephalic child; the same observer also noticed that the alkalinity of the fluid is greater in the morning than in the evening. Now the presence of that glycolytic euyyone is denied by other observers, so that perhaps in the case examined by Cavayzani a little of the euyyone formed by the brain cells had escaped into the fluid. The alkalinity, after the period of rest of the brain, was increased.

Many of the waste products of the brain are probably acid, as in the case of other tissues. These waste products would diminish the alkalinity of the fluid during the day. It seems then that we can conclude that the cerebro-spinal fluid has some function connected with the nutrition of the brain and the production of neural energy. How this is effected we cannot as yet tell, for we do not even know the composition of the true cerebro-spinal fluid—the choroid secretion uncontaminated by the waste products of the brain.

Compared with this action, its mechanical function, as a cushion for the base of the brain, sinks into insignificance. This latter function is important, but has been greatly exaggerated by modern workers; the lymph function was guessed at as long ago as the days of Galen; for according to him the animal spirits were worked up in the cerebral ventricles from the vital spirits taken thither by the blood. From the ventricles they were driven by the systole of the brain into the nerves.

"There the animal spirit doth work local motion, whilst running up and down through the nerves and filling the muscles; it on this side stretcheth tendons, on that side it pulleth them back; but, being weary, it hideth itself into its retirement, which thing we call sleep."

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

An Old Guy's Man in Distress.

DEAR SIR,—I have found an old Guy's man, 74 years of age, living in a small back room on the old age pension, with 2s. supplied by a brother. When I found him he told me his food cost him 5d. per day, and he paid 4s. for his room. He has been in an Infirmary 3½ years, and has come to this condition owing to illness, advancing age, and I think probably some differences with his family. He preserves a good deal of independence, is certainly not intemperate, he cooks his own food and rather prides himself on his skill in this direction. He prefers to live in his present district, as he has been accustomed to it for the last fifteen years. Like many men of his age, he is somewhat of a visionary, but I think if you saw him you would agree that he deserves help. I thought that very likely many present Guy's men might wish to provide him with a day's food or more. It occurred to me that we might place a box for this purpose somewhere in the club to receive contributions. If any old Guy's man would send, say, a postal order for 5s. more or less, it would enable us to provide better accommodation for the old man. I may say that the British Medical Benevolent Fund has granted him 5s. a week for a year.—Yours sincerely,

A MEMBER OF THE STAFF.

[Any of our readers who wish to assist the above old Guy's man, whose case we believe to be a thoroughly deserving one, may send contributions addressed to the GAZETTE Office, and these will be duly acknowledged in the GAZETTE. The name of the old Guy's man is not mentioned for obvious reasons, but both his name and address can be communicated to any of our readers who may wish to take a more direct and personal interest in the case.—ED. *G.H.G.*]

Change of Address.

J. A. Butler, M.D. Lond., from 280, to The Limes, 269, Goldhawk Road, W.

T. Sanday Combe, B.A., from Purton, Swindon, to The Red House, Cranham. near Stroud, Gloucester.

W. F. A. Clowes, from 15, Queen Street, to S. John St. House, Colchester.

E. Clarke Cohen, from Shoot-up Hill, Brondesbury, to to Tarpeen, Beaconsfield, Bucks.

John W. Ensor, M.R.C.S., L.R.C.P., from 204, Moseley Road, Birmingham, to "Ruardean," 25, Reynold's Close, Golder's Green, N.W.

R. Felton, M.B., B.S., from Broadbottom, Manchester, to c/o Post Office, Victoria, British Columbia.

H. J. Gater, L.M.S.S.A. (Lond.), L.M.R.C.P. (Ireld.), from 104, Grove Lane, Peckham, to 68, Lyndhurst Road, Peckham, S.E.

Graham Hunt, L.D.S., from Ardross, Vicarage Road, to 6, Park Crescent, Torquay.

A. Fraser, M.B., from 22 to 75, Shooters Hill Road, S.E.

Notices.

Royal Army Medical Corps.

ENTRANCE EXAMINATION.

AN examination for not less than 20 Commissions in the Royal Army Medical Corps will be held on the 26th July, 1911, and following days. Applications to compete should be made to the Secretary, War Office, not later than 17th July, 1911. The presence of candidates will be required in London from the 24th July, 1911.

A copy of the Regulations for admission to the Royal Army Medical Corps and a form of application can be obtained on application to the Secretary, War Office.

Royal Naval Medical Service.

THE next Examination of Candidates for Commissions in the Royal Naval Medical Service will be held at Examination Hall, Thames Embankment, on the 15th May next and following days. The number of Commissions to be granted will be twelve. The Regulations for Entry and the form to be filled up by Candidates will be supplied on application to the Medical Director-General, Admiralty, London, S.W. The form, accompanied by the necessary documents, should be returned not later than the 4th May, 1911. Candidates must not be under 21 nor over 28 years of age on the day of the commencement of the Competitive Examination, and must be registered, under the Medical Act in force, as qualified to practise Medicine and Surgery in Great Britain and Ireland.

The Examination will consist of:—*A.* Medicine, including Medical Pathology and Therapeutics. *B.* Surgery, including Surgical Pathology and Clinical Surgery.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Surgery of the Diseases of the Appendix. By W. H. Battle F.R.C.S., and E. M. Corner, M.A., F.R.C.S. Second and enlarged edition. (Constable & Co., Ltd.) Price 10s. 6d.

"The Surgery of the Diseases of the Appendix," by Messrs. Battle and Corner, shows that appendicitis must be learnt clinically and not from a book, for, after reading it, we do not feel any further on in our knowledge of the disease. We have read many interesting facts and some uninteresting ones; we have agreed with many of their statements, and disagreed with a good many, too. Though there are some good descriptions of certain aspects of appendicitis in the book, yet it does not give a good description of appendicitis as a whole. The fact is, the disease is so protean, so tricky, and so subtle, that a good description of it is almost impossible. Either the writer must go into such detail that he gets off on to side-issues for page after page, so that the reader loses the main track of the description, or, on the other hand, if he keeps strictly to that track, a description results which takes the reader no further than does the experience of a first "take-in" week. Though some of the best bedside demonstrations, and the very best clinical lecture that we have ever attended, have been on cases of appendicitis, yet all descriptions of the disease that we have read have left us in much the same position as we were after reading this book, namely, a feeling that we have not gained much by it, and might as well have spent our time doing something else. Were Sir James Paget alive now, he might write a description of appendicitis, as a whole, but until someone arises with that knowledge of surgery, that power of description, and that literary excellence which were combined in Paget, we do not think an adequate description of the disease will be written. But, though our authors have not reached the ideal, they have given us a book that contains some good things. Their opinions on the treatment of peritonitis should be read by all clinicals and others who are just starting to treat acute cases, so also should their notes on the importance of individual symptoms in these and other cases. Their arguments in favour of the earlier operation cannot be too strongly urged, and the clinical cases inserted in the text are well worth reading.

We know there are some people who say that the English language is insufficiently elastic, and add that the French can tersely say things for which we have no fitting words. We do not agree with this theory ourselves; we believe it means an insufficient acquaintance with English literature, and would much sooner have gangrene defined as death in a lump than death *en masse*. But as the theory is held, we do not quarrel with "operation *à froid* or *à chaud*." Nor can we cavil at such terms as *per primam* or *fons et origo mali*. We think these are relics of the age when no one could enter Parliament without being able to quote Horace, a pedantic use of the classics that has done much to bring a classical education into an undeserved disrepute. But when it comes to adding an English suffix to a French phrase, we think the limit is reached, and we cannot stomach *en-gardedness*. We beseech the authors to delete it in their next edition.

Modern Surgical Technique in its relation to Operations and Wound Treatment. By C. Yelverton Pearson, M.D., M.Ch., F.R.C.S. (John Bale, Sons & Danielson, Ltd.) Price 10s. 6d.

We did not have the privilege of reviewing the first edition of this work, but this, the second edition, may be unhesitatingly recommended both to practitioners and students who desire a more detailed account of the methods of modern surgical technique than is to be found in the text-books on the general subject. The book is divided into four parts.

Part I. is devoted to "Preliminary Conditions," and embraces an elementary but useful account of such subjects as Sepsis, Asepsis and Anti-Sepsis, Surgical Bacteriology, and a more detailed and, consequently, perhaps more interesting account of disinfectants, a special chapter (new to this edition) being devoted to the standardisation of disinfectants. This part of the work is, on the whole, excellent, though we think that the necessarily cursory notice given to the pyogenic micro-organisms is too short to be of any value, and might well be omitted.

Part II. deals with "Prophylactic Disinfection," and includes the whole of the technique of sterilising the surgeon's hands, patient's skin, sponges, instruments, etc.

This is an admirable section, and deals with the whole subject in a logical and detailed manner, and we think it would be an excellent thing if all men, from the House-Surgeon to the Ward Clerk, who have anything to do with the preparation of themselves or the patient for operation would mark every word.

After all, a knowledge of this is the foundation of success in surgery, as the writer points out, and the ignorance of most students and many qualified men on the subject of, for example, the preparation of catgut sutures, or, again, the relative merits under different circumstances of silk and catgut sutures, is lamentable, and has no excuse now that such a clear and concise account of these matters is available.

Part III. is devoted to "Wound Technique," and deals with the making and mending, and, indeed, the marring of wounds, gives a useful account of the more important varieties of sutures and needles employed in modern surgery, and contains a chapter dealing in an able manner with the prevention and arrest of hæmorrhage.

Part IV. contains a detailed and complete account, even to the extent of providing plans of the ideal arrangements in an operating theatre—marking the exact positions dressers and nurses should occupy—of what might be called theatre technique, and contains an interesting account, for the young practitioner's guidance, of methods to be employed in operating in private houses, and in maintaining a high standard of asepsis in private practice.

From the above brief summary of the contents of the book some idea of the ground covered may be obtained.

The method and style of writing are clear and logical, so much so that the book can be read with the greatest pleasure as well as profit, and we can commend it to the careful notice of all those who, like the writer of this review, have felt the want of an intelligible account of the methods employed in modern surgical technique, methods students usually have to take for granted, and of the purpose of which they usually have a totally inadequate conception.

The book is a most successful attempt to deal effectively with a subject not touched by the ordinary text-book, and for this and the above reasons should gain a considerable popularity.

The Medical Annual, 1911. (Bristol: John Wright & Sons.) Price 8s. 6d. net.

It is quite needless now to recommend the *Medical Annual* to those medical men who are far removed from hospital and medical school, and therefore desire some other method of keeping up-to-date in all the new methods and suggestions for treatment and diagnosis. For the Annual now makes its twenty-ninth appearance, has earned its reputation, and is as good as ever.

It is impossible to deal in detail with the contents of the volume. The reader will find that many spare half hours may be profitably spent in looking through the various articles, and if he be of a philosophical turn of mind, in speculating on the probable duration of life of some of the methods of treatment, and some of the pathological theories which may be found there. Naturally, syphilis occupies an important place, both in the section for new remedies and in the dictionary of treatment. A well-illustrated article on the diagnosis of morbid tissues will be found useful. Mr. Hurry Fenwick's articles on Urinary Surgery differ from others in that the author does not merely record the new work, but also offers a fairly detailed criticism of much of it. It may be questioned whether such criticism is not out of place in a work of reference of this kind, but it certainly makes individual articles more interesting.

The Annual is so well arranged and indexed that reference to any desired subject is very easy. It is interesting to learn from the preface that this—the twenty-ninth issue—has been edited and printed by those who were responsible for the first volume.

Bibliographie des Sciences Médicales. (J. B. Baillière et Fils, 19, Rue Hautefeuille, Paris.) Price 1 franc.

This catalogue will be sent gratis to any of our readers who apply to the publishers, mentioning the name of this journal, and enclosing 25 centimes in stamps for postage.

Atlas of Stomatological Bridge and Regulation Work. By Henry Salamon, M.D. (Lockwood & Co.) 12s. net.

We have before us Volume I., which deals with bridge work. More than seventy cases are described, and numerous methods of treating each; each method is explained by means of a diagram and an enumeration of its advantages and disadvantages, the German text being on the left and the English on the right. Would that English writers had their works similarly translated for Continental circulation.

The Atlas is described as a "reference book for students and practitioners," but we regard it rather as a pictorial history of bridge work, both removable and fixed. The author states that he has collected all cases known to him from literature and his own private and clinical experience; the inclusion of the former necessarily involves the republication of much that is unsound, and of what must have been abandoned long ago. For this reason we are unable to regard the work as "a reliable and practically useful work of reference to the student and practical stomatologist." In addition, the disadvantages, which in nearly every case far outweigh the advantages, are not sufficiently emphasized; taking the first fifty diagrams, there are only three which can be regarded as constructed on sound principles.

In an Atlas such as this, we consider it to be eminently desirable that it should be prefaced by a list of principles according to which bridge-work should be practised; *e.g.*, types of abutments that may be relied upon and from which choice could be made to construct a bridge for any position. The possible combinations are so great that it is irrational to attempt to describe more than sufficient cases to demonstrate the various principles involved in bridge-work.

The cost of an artificial substitute should in no case be an argument for or against any particular method unless two or more have equal merits in every other respect.

We regret the absence of reference to the work of Peeso and Goslee, as well as the fact that methods which include "casting" are entirely omitted, and await with interest the publication of Volume II., which is to deal with "regulation work." Whilst admiring the spirit that has resulted in an English translation, it is suggested that the coming volume receive greater consideration in this direction than the one under notice.

Sport.

Rugby Football.

GUY'S v. LONDON.

Final Round—Inter-Hospital Cup Tie.

The famous milk churn, its hidden influence and its very "unhidden" guardians having been referred to in a previous issue, my duty is thus lessened, and these remarks can be confined to details of one of the best and certainly one of the most popular "finals" of recent years. After Hind and Morton had by "peaceful" persuasion got the field clear of the "fighting" men of both hospitals who had battled so well in the fight for the churn, a new post (the old goal post having been broken in the fray) was erected, and the game commenced.

It was fortunate for Guy's they had the advantage of wind and sun. For the first few minutes London had the best of it; they got the ball from the scrums, Lindsay sending it out smartly, but no material good resulted. Once it looked as though Morriss was going through. The reputation of this player was, however, his undoing; he was so closely marked that he had no chance to make openings. After Guy's had had a narrow escape, Lacey taking a little time to settle down, Stringer punted up field. Touch was found near the London 25. From this period of the game Guy's never looked back. Tweed, following up well, got past the London back; Stout was ready for a pass, but he was brought down inches out only. Saner sent Medlock off from the scrum that followed; after neat handling, Stokes dashed for the line. Brown held him, and Medlock swung the leather back again to the left. Harkness, unmarked, had a rare chance, but knocked on. Next, the Guy's forwards got over the line; Stranack raced for the touch, but was beaten. The next forward movement was well stopped by Heale. The London men put in some passing. Once the ball came out to Palmer, but Stringer tackled him thoroughly, and at half-time the score was nil.

Resuming, Guy's for a long while did most things except score. Stringer played a "heady" game, his touch-finding and judgment assisting his side greatly. London had to tackle their hardest to keep Guy's out. Eventually, after twenty minutes' play, a "halt" was called, and Harkness had to be carried off. He resumed, very pluckily, soon after. Saner and Medlock had initiated a fine round of passing as he came on the field. Harkness fell into his place most opportunely, and the ball reached Stokes. A cross kick, and a London man touching, all were placed "on side." Medlock snapped up the ball, and was behind the posts in a twinkle. Hind easily goaled amid tremendous cheering. All the forwards were now doing their utmost, and Roberts was to the fore on all occasions. The London backs were over-run, and Brown called upon to meet a tremendous attack. The ball was partially fielded, but Medlock got his boot to it, and, kicking over the line, his pace enabled him to gain his second try. Ten minutes before the close London were in Guy's 25. They did their utmost to pierce the defence, but it held; and for the third time in succession—the fourteenth time in all—Guy's hold the cup. Team :—

Guy's.—G. E. W. Lacey (back); L. B. Stringer, A. H. Harkness, W. E. S. Digby, A. L. Stokes (three-quarters); J. G. Saner, C. H. Medlock (halves); G. R. Hind, C. S. L. Roberts, W. S. Stranack, M. Tweed, R. S. Kennedy, O. Parry-Jones, T. D. Stout, A. W. A. Davies (forwards).

Remarks.—Criticism is silenced. All played splendidly, and, from the captain downwards, can look back with feelings of satisfaction on the afternoon's work. Mr. Hind's XV. have secured the right to keep the cup for twelve months more. For this they have the thanks and congratulations of all Guy's men, past and present.

UNITED HOSPITALS (DUBLIN) v. UNITED HOSPITALS (LONDON).

This match, the third of its kind, was played at Richmond, on Thursday, March 23rd. As it came somewhat late in the season, and the Dublin students were unable to get together a representative side, the match was, to some extent, deprived of its importance and interest. The London Hospitals won easily by 21 points to 3, although many of the best men did not turn out. Morton, Hind, Evans, Lindsay, Heale and Medlock are names conspicuous by their absence. In less than a quarter of an hour London were leading by 10 points. The first try was gained by Morriss. He ran splendidly, and completely upset the defence by the "dummy" pass. The try was by the posts. Palmer easily goaled. Stringer accounted for Beckett, who shaped dangerously. The ball was often with the home side, but it was a terrible afternoon for handling accurately, the rain coming down persistently. The second try originated in a cross kick by Palmer. Roberts, coming up at full speed, gathered and went over, for Palmer to goal again. Dublin revived some-

what after this; but it was their full-back who relieved. Running finely from his own 25, he was tackled close in. Murray gave up to Beckett, who was only grassed just in time, Stringer eventually easing the pressure with a long punt. The Irish were soon back again, and Craig with but inches to go was well tackled by Atkinson. From a penalty, Wright just missed, and a very fast first half ended.

Almost at once on recommencing Murray gained Ireland's try. Beckett did not improve on it. The Irish pack showed for a time some typical forward work. They were distinctly unlucky in not scoring again. They actually crossed, but failed to get the touch. Williams, with a couple of efforts, looked a scorer, but slipped on both occasions. Foothold was very difficult. However, the same player was not long denied. His good try which Palmer attempted to convert, but unsuccessfully, as the kick was charged down, was the outcome of clever work. After some brilliant handling, Stranack, the last to receive, dashed over with a try which Palmer converted. An inside pass by the last named to Morriss provided another try, but as no goal resulted, the London men retired winners by 21 points (3 goals and 2 tries) to 1 try (3 points). Teams :—

United Hospitals (London).—M. L. Atkinson (Thomas's) (back); L. B. Stringer (Guy's), E. D. Richards (Bart.'s), H. G. Morriss (London), A. C. Palmer (London), (three-quarters); R. H. Williams (Bart.'s), W. A. Pocock (Bart.'s), (halves); C. S. L. Roberts (Guy's), J. V. Fiddian (Bart.'s), G. M. Chapman (London), P. L. Foot (London), W. S. Stranack (Guy's), S. Moore (King's), A. B. Rosher (Charing Cross), A. Hargreaves (Thomas's), (forwards).

United Hospitals (Dublin).—R. Wright (Adelaide), (back); J. Beckett (Adelaide), J. W. Word (Dun), G. G. Craig (Dun), P. F. Daly (Richmond) (three-quarters); H. E. Murray (Adelaide), W. F. Wilson (Dun), (halves); J. Stephenson (Vincent), J. R. Dowse (Dun), J. G. Ogilvie (Dun), G. E. Broadstreet (Dun), G. H. Oliver (Adelaide), P. Stokes (Vincent), J. Murphy (Mater), H. V. McGusty (Adelaide), (forwards).

Referee.—Mr. E. de Lissa.

Guy's men, especially the Rugby men, have heard with very deep regret of the sudden death of Mr. R. J. Neal, of St. Bartholomew's. He played against Guy's quite recently at Richmond. His position was right wing three-quarter, and he was possessed of fine pace and physique. He was also a splendid place kicker, and his future as a Rugby player was full of great promise. His death, from meningitis, took place but three or four days after the first symptoms of serious illness appeared. St. Bartholomew's and Mr. Neal's friends have our sympathy in their sad and sudden loss.

GUY'S (Holders) v. LONDON.

Semi-Final.—United Hospital Challenge Cup.

At Chiswick, on Friday, March 3rd, London beat Guy's by 2 goals to nothing, and the "Soccer" Cup, after a five years' sojourn in the Borough, passes into other hands.

The ground and the weather were excellent, and a fair number watched a hard game in which the winners played well above form and the losers rather below it. By including Herman, Luker, and Paget-Tomlinson, London considerably strengthened their side. Guy's were without Russ and Camp, while an injury to Keer deprived them of his services after the game had been in progress only 15 minutes.

From start to finish, London tackled and rushed with great energy; they were very fit, and played typical cup-tie football. Halves and backs worried the Guy's forwards without a break, and were continually giving long passes to Batchelor and Paget-Tomlinson on the right, who made a very fast wing. Guy's were evidently insufficiently trained; the forwards tried their short passing game, but were knocked off the ball without ceremony by a vigorous defence. King was sadly neglected. The defence was slow, though Edey and Kyle played very well, and Neale was very fair. Rhys-Evans in goal could not well have done better, both goals against him being "unstoppable." As to the play, it was fast and well contested throughout. London, perhaps, were more often dangerous, and Rhys-Evans had more to do than his *vis-à-vis*. Guy's were often down at the other end, and, with the defence beaten, had three or four good chances of scoring. They threw them away, however, through faulty shooting. In this respect London were far superior; their shots were hard and straight, and without hesitation. Their first goal was about half way through the first half, a brilliant effort; their second, immediately on re-starting, was the result of a burst through which took the backs by surprise by its suddennness. Guy's tried their utmost during the last half an hour, and considerably improved, but the opposition gave them no rope, and what few chances did come their way were not accepted. Team :—

Guy's.—J. E. Rhys-Evans (goal); K. J. T. Keer, C. W. Neale (backs); J. Kyle, H. B. Neely, F. H. Edey (half-backs); R. M. King, V. E. D. Bergh, R. M. Veale, A. H. Birks, S. W. Bevis (forwards).

Death.

SAFFERY.—On March 12th, at Talfourd Road, Camberwell, S.E., Frank Golder Saffery, M.R.C.S., L.R.C.P., in his 42nd year.

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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THE following prizes in the Medical School have been awarded:—Golding-Bird Gold Medal and Scholarship in Bacteriology: Mr. Frank Cook; Michael Harris Prize in Anatomy: Mr. A. J. E. Smith (£10), Mr. F. V. Bevan-Brown (Certificate); Wooldridge Memorial Prize in Physiology: Messrs. F. V. Bevan-Brown and A. J. E. Smith, *æq.*, £5 each, Mr. C. H. Gould (Certificate); Junior Prizes for General Proficiency: Mr. A. J. E. Smith, £20; Mr. F. C. S. Broome, £15. We congratulate all these prize winners on the very satisfactory termination of their labours of the Winter Session.

IN speaking in our last issue of the names of men connected with Guy's who have held the Radcliffe Travelling Fellowship, we inadvertently left out one, that of Mr. E. L. Kennaway, who, though not actually an old Guy's man, is in association with us as Demonstrator of Physiology. We have to thank several readers for pointing out this omission.

THE Matron of the Hospital, Miss L. V. Haughton, read a paper on "Massage Work in Large Hospitals," at the recent Nursing Conference, and in it gave some particulars of the work as carried on at Guy's. It grows continually. Up to 1897 two nurses were sufficient, now there are thirty-six nurses who are certificated masseuses, and the daily treatments range from eighty to one hundred.

IN reponse to the appeal in our last issue on behalf of "An Old Guy's man in Distress," we have received the following contributions:—Drs. Marshall, Pye-Smith and Harrison (Huddersfield), £1 1s.; Mr. R. P. Rowlands, £1 10s.; "A. F. H.," £1 1s.; Dr. G. H. Percival (Northampton), 5s.; Dr. B. Rix (Tunbridge Wells), 5s.; Another Old Guy's Man, 5s.

THE Residents' Going-off Dinner was held on March 31st, and proved a very enjoyable function to those who were present. Mr. J. G. Saner was elected President, and Mr. G. H. Hunt Vice-President, a very popular choice of two very popular men. During the evening champagne was provided through the generosity of Sir Alfred Fripp, and his health, which was proposed by Mr. Eccles, was drunk with acclamation. Mr. Bromley, the off-going President, whom all are so sorry to lose, proposed his successor, and Mr. Saner, in replying, delivered himself of some sage remarks on the behaviour of medical men both inside and outside the hospital. He even touched on the subject of nurses! but we are a little less courageous! Mr. Webster proposed Mr. Hunt in epigramatical monosyllables, and the latter briefly replied. Mr. Elliot, in proposing the new residents, suggested prompt surgical aid for the growth which is rapidly destroying the youthful appearance of one of our future H.P.'s. Mr. Poulton, in the speech of the evening, replied, and made his fellows feel and look uncomfortable by delicate revelations extremely cleverly put. Mr. Gardiner *said* it was the heat of the room;

but . . . . ! Mr. Kahlenberg gave those who are leaving, and we would join with him in wishing them the good fortune they merit. Mr. Francis, in his best professorial manner, proposed the visitors, for whom Mr. J. P. Jones replied. During the evening Messrs. Eccles, Irvine, Dunderdale and Elliot contributed songs which were much appreciated, and Mr. Depree kindly accompanied.

A concert under royal and distinguished patronage, is to be held at the Bechstein Hall on Saturday, April 29th, in aid of the British Medical Benevolent Fund and Guild. The following artistes have kindly consented to give their services:—Mme. Donalda, Miss Aimée Parkerson, Mr. Lawrence Kellie, Mr. Gordon Cleather, Mr. Maurice Farkoa, Miss Lillian Williams, Miss Jacoba Walters, Miss Kendal, and the Hamilton Harty Quartet. Tickets may be obtained at the Hall, at the usual ticket agencies, or from the Secretary, Miss Frank, 3, Elvaston Place, S.W.

Under the heading "A Grumble," Mr. Gerald Sichel raises in our correspondence column an important matter—the attitude of the hospital teaching staff towards general practitioners. The particular case which called forth his protest arises out of a clinical lecture published in the last issue of the Gazette. After re-reading the lecture referred to, we cannot agree with our correspondent that Mr. Stewart in any way emphasized the diagnostic mistake of the general practitioner. But, even had he done so, surely it is just such mistakes which should be emphasized in lecturing to an audience of future general practitioners, that by so doing, the latter may be warned in time to avoid similar pitfalls. Consulting surgeons and physicians do indeed, as Mr. Sichel remarks, also make mistakes in diagnosis, and these mistakes are made very patent to those of us who attend operations and post-mortems. If they seem to be fearful "howlers" they are "emphasized" in no uncertain way in hospital gossip. It is realised that these mistakes have been made in spite of the assistance of the chemist, the bacteriologist, the radiographer, and all the other highly specialised aids to diagnosis. To most of us then the wonder is, not that the general practitioner, in the absence of these aids, occasionally makes mistakes, but that he makes them, on the whole, so seldom, and we have heard more than one member of our staff in "going round" express admiration for the diagnostic acumen of some general practitioner.

"I remember," says Mr. Sichel, "as a keen senior student, I was almost taught to hold general practice in contempt." We do not believe that that could be said at the present time. Students realise that ninety per cent. of them must ultimately pass into general practice, and we do not find that they disdain it. They realise that there is a very important place in medicine for the man who knows something about everything, as well as for the other man, the consultant, who knows everything about something. It is only when, as occasionally happens, glaring diagnostic errors are made by a general practitioner, who perhaps sends up a case of advanced malignant disease which has gone for months unexamined and unrecognised, that he is held up to scorn, and rightly, by our teachers.

Of the general practitioner at the opposite end of the scale we see, happily, many examples. In a book lately published, called "The Corner of Harley Street," which we came across the other day like an oasis in the arid wastes of professional books for review, there is a description of that type of man, which is so good that we cannot resist the temptation of quoting it at length:—

> "He may not be able to excise a Gasserian ganglion, or know very much about the researches of Calmette or von Pircquet, but he knows precisely when to call in the men who do, and he's just the sort of assistant with whom they feel safe in setting out to work. While, on the other hand, upon a hundred points, little every-day problems of medical practice, unclassified ailments that have never got into the text-books or been dignified with a Latin name, doubtful beginnings of more definite illnesses, their home treatment, and the adequate settlement of the domestic problems that they involve, there isn't a man in Harley Street who could give a more valuable opinion. . . . Such men are not only the

pillars of our profession, but its topmost pinnacles, even if the wreaths and the knighthoods but seldom come their way. . . . I think that I can detect . . . in the newer generation of qualifying students, a kind of reluctance about going into general practice, as if this were in a way an admission of failure, a sort of *dernier ressort*. Whereas, of course, there is no point of view from which such a way of looking at it is at all justifiable. General practice is at least as difficult, if it is to be carried on well and successfully, as any special practice can be, and probably more so."

With this, the opinion probably of a consultant, we close the subject, assuring our correspondent that the GAZETTE, at any rate, is whole-heartedly in sympathy with the general practitioner, and recognises both his difficulties and his triumphs. If a small section of that small section of the profession which is supposed to live in Harley Street thinks otherwise of general practice, we can only regret that its members have not all had the mental and moral discipline of a few years' experience of it.

Pass List.

FIRST CONJOINT EXAMINATION, March, 1911.

Part I.—Chemistry. Part II.—Physics.

*Buer, W. B.	Morgan, E. C. de M.
*Gibson, C. C. G.	*Pratt, W. H. A.

*Passed in Part I. only.

Part III.—Elementary Biology.

Buer, W. B.	Kilroe, W.
Coffin, S. W.	Lloyd, V. E.
Day-Lewis, A. K.	Long, G. S. B.
Gibson, C. C. G.	Marston, A. D.
Horsley, L.	Morgan, E. C. de M.
Housden, C. H.	Rook, A. F.

Victory, J.

April, 1911.

Part IV.—Practical Pharmacy.

Bennett, R. S. de C.	Holmes, R. A.
Bulleid, A.	Hyde, W. S.
Crawford, H. G.	Poyser, R. C.
Curle, R.	Preston, G. L.
d'Arifat, A. C. L.	Sutton, W. H. A. D.
Frädersdorff, A. J.	Watkin, P. J.

Whitworth, W. C.

SECOND CONJOINT EXAMINATION, April, 1911.

Anatomy and Physiology.

Drew, A. J.	Medlock, C. H.
Lawson, F. W.	Moberly, A. V.
Mather, H.	Trounce, T. R.
Matson, R. C.	Wilson, S.

Royal College of Surgeons of England.

Licence in Dental Surgery.

Preliminary Science Examination.

Boutwood, R.	Lloyd, W. G.
Cooper, T. P.	Moore, G. K.
Lawrence, F. W.	Windemer, L. D.

University of Durham.

March, 1911.

The following Candidates have satisfied the Examiners:—

Third Examination for the Degree of Bachelor of Medicine.

Pathology and Elementary Bacteriology, Medical Jurisprudence and Public Health.

Honours—Second Class.

Dodd, H. G.

Second Examination for the Degree of Batchelor of Medicine.

Ninnis, R. P. | Scott, D. C.

First Examination for the Degree of Bachelor of Medicine.

Elementary Anatomy and Biology, Chemistry and Physics.

Smith, C. R.

Chemistry and Physics.

Braine, J. F. Carter	Jones, D. R.
Cuff, C. C. H.	Richards, D. O.
Elliot, H. H.	Savage, P.

Change of Address.

E. L. Elliott, M.R.C.S., L.R.C.P., M.B., B.S. (Lond.), from Guy's Hospital to the Grey House, Sevenoaks.

R. C. H. Francis, M.R.C.S., L.R.C.P., from Guy's Hospital to Royal Sea Bathing Infirmary, Margate.

Fleet-Surgeon F. Davidson-Lumley, R.N., from 1, Bridge Avenue Mansions, Hammersmith, to H.M.S. *Defence*, First Cruiser Squadron, c/o G.P.O.

W. G. Nash, M.R.C.S., L.S.A., Amended Address, 1, Crescent Road, Wokingham,

James F. Rymer, M.R.C.S., L.R.C.P., from Fort Smith to Fort Resolution, Great Slave Lake, N.W. Territory, Canada.

E. Bellingham Smith, M.D. Lond., M.R.C.P., from Guy's Hosp., to 30, Weymouth Street, W.

H. J. Spon, M.R.C.S., L.R.C.P., from 23, Southwark Bridge Road to 48, Queen Anne Street, Cavendish Square, W. Telephone: Mayfair 2712.

Oesophageal Peristalsis.

By Dr. ALFRED C. JORDAN.

When speaking recently on the Röntgen-ray examination of the Œsophagus (1) I made the following statement:—"The rate at which a bismuth emulsion descends depends principally upon the thickness of the emulsion; it is shot rapidly, by the act of swallowing, through the pharynx, and then passes through the œsophagus of its own weight. I have seen very little evidence of genuine peristalsis in the œsophagus, the main propulsive force being gravity, both in health and disease. Of course, peristalsis does occur." Later, in replying to remarks by Dr. Orton and Dr. Hertz, I said: "I did not deny the existence of œsophageal peristalsis; in fact, I said that peristalsis did occur. I had drunk a glass of water while as near the inverted position as I could get, in order to convince myself that the fluid stayed in the stomach. My contention is that peristalsis plays a very small part in the examination of the œsophagus. A thin emulsion passes down quickly, a thick emulsion slowly. In the stomach, when there is pyloric obstruction, it is common to see very powerful peristaltic waves trying to overcome the obstruction. No analogous phenomenon is ever observed in case of obstruction at the lower end of the œsophagus."

With the exception of the last sentence, I am still perfectly satisfied that the above statements represent the truth, but as to this sentence I have quite recently observed two cases (in the same week) which demonstrated quite clearly that the contrary is the case; that the œsophagus may, in fact, undergo powerful regular peristaltic contractions in an endeavour to overcome a tight stricture at its lower end, although the phenomenon is rarely seen. Thus I have committed the crime of generalising on insufficient data, a fault I am always ready to decry in others. In justice to myself I must add that I do endeavour honestly to avoid falling into this error, and that in the present instance I thought I had examined enough dozens of cases of œsophageal obstruction to permit of my being somewhat dogmatic.

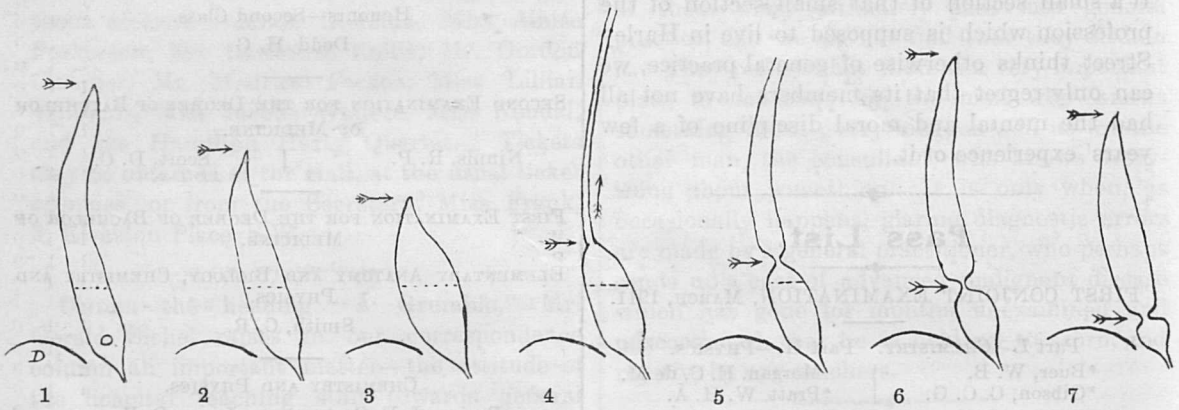


Fig. 1.—Shows successive stages in the passage of a peristaltic wave down the œsophagus, whose lower orifice is obstructed. The steady downward progress of the wave is shown by the arrows, which point to the node of the wave. In (6) and (7) a second wave has begun to descend (the upper arrow). The wave, in its earlier stages, pushes the whole of the œsophageal contents before it, causing increasing dilatation of the lower part of the tube (1) (2) and (3). A point is then reached at which the œsophagus resists further dilatation, when a column of its contents is shot up suddenly through the narrow passage at the node of the wave (4). The peristaltic wave still continues to descend—(5), (6) and (7)--at the rate of about an inch a second.

D = Diaphragm. O = Œsophagus.

In both cases under discussion there was an impermeable stricture at the lower end of the œsophagus. Both patients were men; one, aged 75, was in Stephen 10, under the care of Dr. French, the other, aged 44, in Naaman, under Mr. Dunn's care. In the former case the symptoms had existed six months, in the latter not more than two months. The patients were examined in the usual position, seated on the revolving stool, upright, and in the oblique position which brings the posterior mediastinum

(1) Proceedings of the Royal Society of Medicine, Vol. iv., No. 2. December, 1910.

into view. The patients were given a bismuth emulsion to drink. This was observed to descend (as usual) to the lower end, and to accumulate here in the usual manner above the stricture. Enough emulsion was swallowed to fill the œsophagus for the lower two-thirds of its length; thus a dark column was produced, widest at its lower end, where the œsophagus was dilated, and fully eight inches in length.

After a short time, peristaltic waves were seen to descend at regular intervals from the top of the column of emulsion; the rate of descent was about an inch a second. During the first part of the descent the emulsion was forced down before the peristaltic contraction, and the lower part of the œsophagus became considerably more dilated. Then, when the wave was some three inches from the lower end, a long slender column of emulsion was shot up suddenly through the peristaltically-contracted zone almost as high as the pharynx; the peristaltic wave, however, continued to descend at the same rate until it reached the level of the diaphragm. By this time another wave was descending, forcing the column of emulsion before it.

This sudden ascent of a thin column of bismuth emulsion is a most striking phenomenon, and might easily be mistaken for reversed peristalsis; careful observation, however, showed most definitely that the waves passed downward steadily to the bottom, and followed one another in a regular sequence. No doubt the phenomenon could be imitated by a simple mechanical model, but it is difficult to obtain a tube whose properties resemble those of the œsophagus sufficiently nearly for the purpose. The sequence of events is illustrated by the diagrams (Figs. 1–7).

Even in these two cases the œsophagus will almost certainly soon pass into the condition of atonic dilatation commonly associated with obstruction at the cardiac orifice.

Contemporaries' Club.

In pursuance of the arrangements agreed to at the last meeting of the Club, the Annual Dinner will be held this year, in association with the "Goblins' Club," on Thursday, May 4th, at the Trocadero Restaurant, Piccadilly Circus, at 7.15 p.m. for 7.30. Members intending to be present are requested to notify either of the Hon. Secs., on or before Tuesday, May 2nd.

Hon. Secs.:—E. B. Dowsett, M.R.C.S., L.D.S., 1, Gloucester Street, W.
Lawrie McGavin, F.R.C.S., 6, Mansfield Street, W.

Miss Newton Testimonial.

FOURTH LIST OF DONATIONS.

	£	s.	d.
Amount already acknowledged	525	9	6
J. R. S. Ash, Esq. (Nice, France) ...	3	3	0
C. G. Morice, Esq., M.D. (New Zealand)...	3	3	0
Henry Williams, Esq.	3	3	0
W. T. F. Davies, Esq., M.D. (S. Africa)	2	2	0
J. M. Gill, Esq., D.S.O., M.D. (S. Africa)	2	2	0
Capt. M. H. Thornely, I.M.S. (India) ...	2	2	0
A. E. Norburn, Esq., M.D.	1	10	0
T. R. Beale-Brewne, Esq. (South Nigeria)	1	1	0
H. T. S. Bell, Esq., F.R.C.S. (New South Wales)	1	1	0
W. H. Bush, Esq.	1	1	0
H. J. Campbell, Esq., M.D.	1	1	0
A. E. Clarke, Esq., M.D.	1	1	0
J. Jordan Coleman, Esq.	1	1	0
A. T. Densham, Esq.	1	1	0
M. R. Dobson, Esq.	1	1	0
Frederic Durham, Esq., F.R.C.S. ...	1	1	0
W. Norwood East, Esq., M.D.	1	1	0
J. H. Ewart, Esq.	1	1	0
Wheelton Hind, Esq., M.D.	1	1	0
W. H. A. Jacobson, Esq., M.Ch.	1	1	0
W. P. Le Feuvre, Esq. (Rhodesia) ...	1	1	0
Captain G. E. Malcomson (India) ...	1	1	0
Oswald Marriott, Esq., M.D. (Hong Kong)	1	1	0
W. L. W. Marshall, Esq.	1	1	0
C. S. Morris, Esq.	1	1	0
W. R. Ransford, Esq. (India)	1	1	0
B. Rix, Esq.	1	1	0
Lt.-Col. J. V. Salvage, M.D. (India) ...	1	1	0
D. W. Samways, Esq., M.D. (Mentone, France)	1	1	0
J. T. Smalley, Esq.	1	1	0
J. D. Thomas, Esq.	1	1	0
A. M. Tolhurst, Esq.	1	1	0
Ernest L. Ward, Esq.	1	1	0
F. Wyatt-Smith, Esq.	1	1	0
C. T. Anderson, Esq.	1	0	0
J. Irwin Boswell, Esq., M.D. (S. Africa)	1	0	0
John E. F. Hosking, Esq. (N. S. Wales)	1	0	0
P. H. Ward, Esq.	1	0	0
L. S. H. Glanville, Esq., M.D.	0	10	6
E. B. Hinde, Esq.	0	10	6
G. H. Knapp, Esq. (South Africa) ...	0	10	6
W. Norman May, Esq., M.D.	0	10	6
Alfred Pain, Esq.	0	10	6
B. H. Palmer, Esq.	0	10	6
A. Temple Perkins, Esq.	0	10	6
E. P. Poulton, Esq.	0	10	6
F. M. Robertson, Esq., M.D.	0	10	6
James F. Robinson, Esq., F.R.C.S. ...	0	10	6
J. S. Steele-Perkins, Esq.	0	10	6
R. Stout, Esq.	0	10	6
T. D. M. Stout, Esq.	0	10	6
H. E. Vincent, Esq.	0	10	6
T. J. Wright, Esq., F.R.C.S.	0	10	6
W. Carling, Esq.	0	10	0
T. B. Heaton, Esq.	0	10	0
W. A. Lauder Smith, Esq.	0	10	0
"Anonymous"	0	5	0
C. E. M. Jones, Esq.	0	5	0
G. L. L. Lawson, Esq.	0	5	0
J. M. Thorne, Esq.	0	5	0
	£585	9	0

The Feeding of Babies with Undiluted Citrate Milk.

By Dr. H. C. MANN.

So many hospital men have asked me about the use of undiluted milk for babies, that I think it may be worth while to publish in the Gazette my experiences of this method of feeding by hand. I do not think that it has had in this country an extensive trial; certainly there has been no general recommendation for its use, and I know of no other published series of cases in which undiluted milk has been universally employed, though in Paris this method of infant feeding has been a common one for some years.

Old customs, of course, die hard, especially if they receive some pseudo-physiological pension to longevity. Only the other day some one said to a married friend of mine: "My dear, have nothing to do with those foolish people who tell you to bring up your baby on undiluted milk." I must confess that I am one of these damnable heretics. During my first two years at the Evelina I was a faithful disciple, and employed the so-called physiological methods of baby-feeding, but for three years past now, I have used *nothing else* but undiluted citrate milk, and I am never going back to the old system.

During this period some four hundred infants have been under treatment for troubles in connection with breast or bottle feeding, and in only half a dozen cases have I been obliged to adopt modifications. Three of these were fed upon patent foods; one of the others was the porridge-fed baby whom I showed at a meeting of the Physical Society last November.

So many books have already been written on the subject of infant feeding, and so much redundant matter is already in print, that I merely intend these notes to furnish proof of the success which I have found to follow the universal adoption of this method among all classes of out-patients.

Three facts are to be remembered: Firstly, that the casein clot from cow's milk provides the great stumbling block to digestion, and that mere dilution of the milk does not remove the difficulty, while, at the same time, the all-important fat percentage is reduced far below the minimum requirements of the child. Secondly, that the addition of sodium citrate to each undiluted feed leads to the formation of an intragastric clot of much less density than the corresponding calcium-casein compound, so that indigestion is avoided, and vomiting is less frequent. Thirdly, that by this method the bulk of each feed is small, and for this reason alone more likely to be retained.

The parent is provided with a solution of sodium citrate in water containing as many grains to the drachm as there are ounces in each feed. She is told to put a teaspoonful into the milk, to stir and to warm until the feed is steaming, and then to cool until the proper temperature is obtained. Such simple directions will appeal to anyone who has ever tried to give advice to a Bermondsey mother. There are a certain percentage of children who from the earliest weeks are able to digest undiluted milk even without citrate, but they are few in number, and my experience is that it is wiser to give this salt in all cases, as the difference in consistency of regurgitated clot is very noticeable when it has been decalcified.

This is unfortunately an age for sensational methods of treatment, synthetical compounds and "certain cures," so that much that is written is either discredited or accepted with caution, but those people who know me well are also well aware that I am much too fond of children to recommend, as I do most strongly, such a broad departure from generally accepted methods in this paper, which, after all, is the public press, unless I had first convinced myself of its great and almost universal utility. For this reason also I think it as well to give the weights of all the children concerned, who have been fed by the above method during the last ten months.

In a paper read at a meeting of the British Medical Association in July, 1905, Dr. F. J. Poynton first drew attention to the advantages of citrate milk for babies, though he did not at that time use an undiluted feed. I have found, as he did, that even in the second year of child-life the mother often comes back for a further supply of citrate because colic and vomiting are thereby avoided.

The amount of each feed at any given time, and the total quantity per diem, depend upon the size of the child and not upon its age; besides this, any nurse who has had much to do with the feeding of babies is well aware of the fact that successive feeds may vary considerably, some are larger, others are smaller, and any attempts to make the child take a constant quantity at each feed is sure to be followed by disaster. Most children of six months and upwards will manage two pints of this undiluted milk during twenty-four hours without any evidences of indigestion provided that citrate is added. More attention is to be paid to the total quantity per diem than to size of successive feeds and the intervals between them, considerable variation in the latter being quite compatible with perfect health and a normal development.

I am greatly indebted to Mr. N. A. Dyce-Sharp, who was one of my clinical assistants last year, for much help in the revision of proof sheets and the collection of cases.

Explanatory Note. — The babies are weighed by Sister at least once a week, in some cases twice a week. The figures given below indicate the weight in pounds and ounces. A "comma" between two weights signifies an interval of a week, and a "semicolon" indicates a fortnight. Unless otherwise stated, it may be understood that the baby was born at full term. Occasional notes among the weights give the

child's age at that particular time, and indicate complications which often explain a failure to gain weight at some period. Sometimes the quantity of milk per diem is stated in ounces or pints. The cases are arranged according to the age at which they come under treatment. It should be understood that in *every* case the child was *losing* weight either with breast feeding or with some modification of hand feeding before the undiluted milk was started. The letters are references of my own.

A.—Undiluted Citrate Milk Alone.

Age—3 *weeks.*

1. W. A.—6.10, 7.0, 7.0, 7.0, 7.5, 7.10, 8.0, 8.10, 9.0. 9.8, *(3 months)*, 10.0, 10.2, 10.10, 11.2; 12.0; 13.0 *(5 months)*.
2. T. A.—8.4, 8.12, 9.4, 9.10, 10.0, 10.2; 10.13; 11.6; 12.0; 12.8 *(4 months)*.
3. G. C.—5.12, 5.12, 6.0, 6.4, 6.8, 6.15, 7.6, 8.0, 8.8, 9.0, 9.4, 9.14; 10.8; 11.4; 12.2 *(5 months)*.

Age—1 *month.*

4. W. B.—8.9, 9.4, 9.10; 10.4; 11.0; 11.14; 12.6; 12.12 *(5 months)*.
5. W. C.—5.10, 6.2, 6.12 (Diarrhœa), 6.13, 6.13, 6.11; 7.0, 7.7, 8.0, 8.8, 8.12, 9.7, 10.0; 11.0; 12.2; 12.15; 13.12 *(6 months*, milk, 2 pints); 14.12; 15.8; 16.1; 16.2; 16.14; 17.8...one month interval...18.0; 18.8 *(10 months)*; 18.12; 18.8 (measles); 18.8; 18.10; 19.0, 19.4; 19.8; 19.8; 19.8 *(15 months)*.
6. A. G.—8.0, 8.5, 8.10, 8.14, 9.8; 10.0; 10.10; 11.8; 12.4 *(4 months)*; 12.10; 13.4; 13.10; 13.8; 14.0; 14.2; 14.8; 15.4 *(8 months)*.

Age—5 *weeks.*

7. T. J. (premature, 8½ months).—7.4, 7.10, 8.4, 8.12, 9.4; 10.2; 11.14; 12.14; 13.8: 14.2; 14.10; 15.2; 15.12; 16.6; 17.4 *(7 months)*.
8. J. S. (premature, 8½ months).—7.0, 7.0, 7.11, 6.8, 7.0, 7.8, 8.0, 8.4, 8.10 *(3 months)*, 9.0, 9.6, 9.14, 10.4, 10.8.
9. M. V.—4.10, 5.2, 5.8, 6.0, 6.6, 6.4, 7.4, 7.10, 8.1, 8.13, 9.8, 10.0, 10.12, 11.0 *(4 months)*, 11.8, 12.4, 13.0, 12.8 (measles); 12.12, 13.0, 13.4; 14.4; 15.0.....16.0 *(8 months)*, 17.8 *(9 months)*.
10. A. A.—6.8, 6.10, 6.13, 7.4, 8.0, 8.6, 9.0; 9.6; 10.0; 10.5 *(4 months)*.

Age—6 *weeks.*

11. G. D.—5.0, 5.2, 5.4, 5.6; 6.10; 6.10; 6.15 *(4 months)*; 8.0; 8.12; 9.6; 10.2; 10.12; 11.8 *(7 months)*.
12. L. M.—7.8, 7.13, 8.0, 8.7, 8.15, 9.3, 9.12, 9.14, 10.4, 10.9, 11.0, 11.3, 11.2, 11.4, 11.12 (5 *months)*, 12.4, 12.4; 13.0; 13.7; 14.0; 14.4; 15.4; 15.12, 14.12, 13.8, 14.4 *(9 months)*; 15.0; 15.8; 16.6; 17.6; 18.8; 19.2 *(12 months)*.
13. J. T.—6.4, 6.10, 7.0, 7.5, 7.12, 8.0, 8.6, 8.12; 9.4; 10.0 *(4 months)*.
14. F. G.—5.8, 6.0, 6.8, 7.0, 7.10; 8.8; 9.12; 10.8 *(4 months)*.
15. K. B.—5.8, 5.12, 5.12, 5.10; 6.5; 7.0 *(3 months)*; 8.2; 8.14; 9.6; 10.0 *(5 months)*.

Age—7 *weeks.*

16. C. K. (premature, 8 months).—6.0...10 days interval...7.0, 7.6, 7.12; 8.8 *(3 months)*; 9.2; 9.10.
17. J. W.—7.4, 6.8, 7.0, 7.8, 8.4, 8.10 *(3 months)*, 9.4, 10.0, 10.0, 10.9, 11.4; 12.0; 12.9..... 13.8 *(6 months)*; 14.1.
18. D. D.—6.12, 6.9, 7.8, 7.12, 8.0, 8.6, 8.14, 9.4; 10.0; 10.12; 11.8 *(5 months)*.

Age—8 *weeks.*

19. C. B.—6.9, 6.9, 6.9, 7.0, 7.0, 7.8, 6.8, 6.11 6.14, 7.2, 7.9, 7.10, 8.0, 8.2, 8.12, 8.14 *(6 months)*, 9.5, 9.4, 9.10, 10.4, 10.10, 11.2, 11.2, 11.3, 11.9, 12.1, 12.4, 12.8 *(8 months)*, 12.12, 13.4, 13.10.
20. E. C.—7.8, 8.0, 8.4, 8.4, 8.9, 9.4, 9.14; 10.12: 11.9; 12.0; 13.1 (5 *months*); 13.10, 13.12; 13.8; 13.10; 14.4 *(7 months*, milk, 2 pints); 14.14; 15.0 *(8 months)*.
21. L. P.—6.8, 7.0, 7.4, 7.8, 8.0, 8.8 (milk, a pint and a half, 9.0; 9.8; 10.6; 11.8 (5 *months*), 12.4; 12.10.
22. C. H.—8.12, 9.8, 10.0; 9.10, 10.4, 10.12, 11.3; 12.0; 12.8.....3 weeks interval.....13.12 *(5 months)*.
23. L. T. (full time twin).—5.12, 6.8, 7.0, 7.8, 7.9; 8.2, 8.8, 9.0, 9.0, 9.4, 9.8, 9.12, 10.0, 10.7. 10.9, 11.4 *(6 months*, milk, 2 pints).

Age—2 *months.*

24. D. C.—13.7; 14.0; 14.10; 15.0; 15.0; 15.8; 15.3; 16.10 *(5 months*, milk, 2 pints); 16.14; 17.6; 18.4; 19.0 2 months interval.....20.8 *(9 months)*.....22.0 *(12 months)*.
25. E. H.—7.0, 7.6, 8.0, 8.8, 8.10, 9.0, 9.10; 10.4 *(4 months)*.
26. I. S.—6.3, 5.12, 6.3, 6.8, 6.12, 7.11, 8.0, 8.8, 9.0, 9.4, 9.12; 10.0, 10.8 *(5 months)*; 11.2; 12.0; 12.2; 13.0; 13.8; 14.0 *(8 months)* (congenital syphilis).
27. A. Y.—7.0, 7.9, 7.12, 8.1, 8.4, 8.8, 8.10, 9.0 *(4 months)*, 9.0, 9.0, 9.2, 9.8 (5 *months*).
28. A. A.—7.12; 8.4; 8.9, 9.0, 9.4, 9.8, 9.12, 9.12; 10.10; 11.2; 11.12; 12.2 *(6 months)*.
29. G. H.—6.2, 7.4, 7.8, 8.6, 9.0, 9.4, 9.12,10.0, 10.8 (4 *months*).
30. F. D.—6.4, 6.7, 7.8.
31. N. S.—7.8, 7.12, 7.12, 7.12,...4 weeks interval... 8.0, 8.2, 8.8, 7.10, 8.8, 8.12, 9.2, 9.2, 9.8, 10.0; 11.0, 11.4 (6 *months*, milk, 2 pints).

Age—9 *weeks.*

32. R. P.—5.10, 6.3, 6.1, 6.8, 6.5 (3 *months*), 6.8, 6.8, 6.12, 7.1, 7.12, 7.13, 8.0, 8.0, 8.8, 8.4, 9.0 (6 *months*), 9.8, 9.8; 10.4; 11.0; 11.6 (8 *months*) (congenital syphilis).
33. A. R.—8.8, 8.12, 8.10, 9.0, 9.2, 9.8, 10.0, 10.8, 11.0 (4 *months*) (congenital syphilis).
34. R. R.—8.0, 8.2, 8.6, 8.10; 9.6, 9.10, 9.14, 10.8; 11.8; 12.0 (5 *months*).

Age—10 *weeks.*

35. E. M.—7.0, 8.0, 8.4; 9.4, 9.9 (23 ounces).
36. G. E.—9.6, 9.10, 10.0, 10.4, 10.8, 11.0, 11.7, 11.12; 12.2; 13.0 (5 *months*).

Age—11 *weeks.*

37. C. R.—6.8, 7.0, 7.4, 7.13, 8.0, 8.2, 8.8; 9.4; 9.12; 10.8; 10.8; 10.14; 11.2 (7 *months*).

Age—12 *weeks.*

38. H. H.—8.2, 8.10, 8.12 (milk, a pint and a half), 9.0, 9.4, 10.1 (4 *months*), 10.4, 10.2, 10.2, 10.6, 10.8, 11.0.

Age—3 *months.*

39. A. C.—7.14, 8.0; 8.4; 9.0; 9.4; 9.6; 10.8; 10.14 (6 *months*).
40. H. D.—6.14, 7.1, 7.8, 8.2, 8.8, 8.15 (4 *months*), 9.8, 9.12...5 weeks interval...12.0.
41. C. G.—9.0, 9.4, 9.8, 9.14, 10.2, 10.8, 10.13, 10.14; 11.6; 12.4; 13.4; 14.0; 14.12 (7 *months*); 15.2; 15.8; 15.12; 16.0 (9 *months*); 16.6; 16.13; 17.5; 18.0 (11 *months*); 18.8; 19.3; 19.8; 20.0 (12 *months*); 20.8; 21.3
42. L. G.—11.8, 12.8, 13.0, 13.2, 13.8, 13.7, 14.6, 14.8, 15.0 (5 *months*); 16.1; 15.12; 16.8; 17.0 (7 *months*); 17.12; 18.4 (8 *months*).
43. H. Mc.—6.12, 7.1, 7.5, 7.10, 8.0; 8.10, 8.8, 9.0; 9.12; 10.4; 11.2, 11.8...2 months interval... 13.4 (8 *months*).....13.14 (9 *months*).....14.12 (10 *months*).
44. M. R.—8.10, 9.0, 9.0, 9.4, 9.6, 9.12, 9.14, 10.8; 11.0; 11.8; 12.0; 12.8 (7 *months*).
45. I. W.—11.6, 11.12, 12.2, 12.12, 13.0; 13.4; 13.8; 14.0; 14.2 (6 *months*). (No progress with breast feeding. Large child at birth.)
46. H. W.—8.9, 9.2, 9.0, 9.8, 9.0, 9.0, 9.7, 9.2, 9.8 (5 *months*); 9.8; 9.8, 10.0, 10.0, 10.6, 10.8, 10.8, 11.0 (7 *months*).....12.9 (9 *months*), 12.2; 13.0, 13.13, 14.0, 13.10; 14.9; 15.0 (11 *months*), 15.4; 15.8, 16.4. 17.1, 17.10
47. W. W. —12.7, 12.6; 13.0; 13.12; 14.6...3 weeks interval...15.6...3 weeks interval...16.10 (6 *months*). (Colic, convulsions, constipation, at 3 months.)
48. E. W.—8.4, 8.0, 9.0, 9.0, 9.0, 9.4; 10.0, 8.10, 9.6, 9.8, 10.1, 10.8 (6 *months*). (Diarrhœa at 3 months.)
49. D. C.—10.4, 11.0, 11.8, 12.0, 12.6, 12.8, 13.4.
50. W. P.—7.0, 7.4, 8.4, 8.12, 9.4, 9.9, 10.0; 11.4 (5 *months*); 12.8, 12.5, 12.8, 13.4, 13.8...3 weeks interval...14.8, 13.8 (diarrhœa), 14.0; 14.12; 15.1; 16.0; 16.8; 17.0 (10 *months*, milk, 2 pints).
51. A. E.—7.3, 7.3, 7.6, 7.12, 8.4, 8.12, 9.4, 9.10; 10.8; 11.6; 12.2; 12.12; 13.4 (8 *months*).
52. G. F.—8.12, 9.4, 9.10; 10.8; 11.0; 11.8; 12.2; 12.8; 12.10; 13.2 (7 *months*).
53. T. G.—8.8, 8.6, 8.8, 8.12, 9.4; 10.0, 10.6; 11.4; 12.0, 12.4 (6 *months*).

Age—4 *months.*

54. F. A.—9.10, 10.0, 10.2, 10.7, 10.14, 11.2, 11.2, 11.4, 11.8 (6 *months*); 12.2; 12.10; 13.4; 14.0; 14.10; 15.6 (9 *months*).
55. M. A.—10.12, 11.0, 11.8, 11.9, 11.8, 12.0, 12.6, 12.12, 13.4, 13.10, 14.0, 14.4; 14.12 (7 *months*).
56. P. A.—9.2, 9.4, 9.9, 9.12, 10.0, 10.0, 10.0, 10.8; 11.6 (6 *months*).
57. M. B.—8.6; 8.6; 8.8; 8.11; 9.4; 9.4; 10.10 (7 *months*).
58. P. D.—6.5, 6.12, 7.0, 7.1, 7.8, 8.0, 8.8, 9,1, 9.9, 10.3, 10.6; 10.12, 10.15; 11.7; 11.11; 12.0; 12.4 (10 *months*).
59. F. F.—9.8, 10.6, 10.14, 11.8...19.10 (12 *months*).
60. F. W.—8.8, 8.9, 8.9; 9.0; 9.8; 10.2; 10.10...6 weeks interval.....12.8 (7 *months*).....13.8 (8 *months*)...14.4 (9 *months*)...18.3 (12 *months*).
61. M. P. (premature, 7 months).—5.8, 6.0, 6.8, 7.0, 7.8, 7.8, 7.8; 8.0 (6 *months*)...9.0 (7 *months*) .....10.0 (8 *months*).
62. V. E. (premature, 7½ months).—6.10, 7.2, 7.8, 8.4, 8.4, 9.4, 9.6, 10.0, 10.8.
63. C. H.—8.0, 8.1, 8.0, 8.4, 8.8, 8.4, 8.8, 8.11 (6 *months*); 9.1, 9.2, 9.9, 9.10, 10.0, 10.4, 10.4, (8 *months*), 11.0; 10.12; 10.12; 11.4; 11.7; 12.8; 12.8; 13.0; 13.4; 13.0, 13.4; 14.6; 15.0; 15.4 (14 *months*), 16.0.
64. I. T.—9.10, 9.7, 9.10, 9.13, 10.4, 9.14, 10.4; 10.5 (6 *months*); 10.8; 11.2; 11.12; 12.4; 12.8; 12.8 (measles); 12.12; 12.12; 13.12; 14.0; 14.4; 15.0; 14.12 (bronchitis).

Age—5 *months.*

65. V. A.— 6.0, 6.8, 6.8, 6.4, 7.0, 7.0, 7.4, 7.2, 7.8, 7.8, 7.8, 8.0; 8.12 (8 *months*); 9.10; 10.8; 11.6; 12.4.
66. J. P.—10.4, 10.9, 11.8, 11.4; 11.13; 12.10; 13.2; 13.10; 14.0; 14.6 (9 *months*).....15.0 (10 *months*).....16.0 (12 *months*) (diarrhœa)..... 19.0 (14 *months*).
67. E. S.—8.0, 9.0, 9.10, 9.10, 10.0, 10.4; 11.0; 12.0; 12.2; 12.8; 12.9; 13.5; 13.12; 14.8; 15.6 (10 *months*).
68. F. G.—9.8, 9.12, 10.2, 10.6, 10.12; 11.4; 12.0 (7 *months*).

Age—6 *months.*

69. A. B.—9.4, 10.0, 10.0, 10.4, 10.8, 10.12, 11.1, 11.4, 11.9 (8 *months*), 12.0.
70. F. C. (premature, 8½ months).—9.10; 10.0, 10.2, 9.14, 10.4, 10.8, 10.11, 10.8, 11.0 (8 *months*), 11.12: 13.2; 13.7; 13.14; 14.5 (10 *months*).
71. B. B.—10.0, 10.8, 10.14; 11.8; 12.0; 12.6; 13.0; 12.4, 12.10, 13.4, 13.12; 14.10; 15.6; 16.6; 17.4 (11 *months*).
72. W. E.—9.8, 10.0, 10.6; 11.6; 12.4; 13.2 (8 *months*); 14.4.
73. A. F.—8.8, 9.0, 8.12, 9.0, 8.13, 9.1, 9.8, 10.0, 10.0, 10.4; 10.14; 11.2; 11.7 (10 *monlhs*).

Age—8 *months.*

74. B. B.—11.0, 11.4, 11.8, 12.4, 12.8, 13.0, 13.2..... 7 weeks interval.....16.1 (11 *months*).
75. C. C.— 9.0; 9.4; 10.0; 11.0; 11.6 (10 *months*) (mother, syphilitic, secondary).
76. E. T.—11.2 (diarrhœa), 12.4, 12.14, 13.8.
77. B. S.—14.0, 14.8, 14.8; 15.0; 16.0; 17.0; 18.0; 18.12 (11 *months*).

Age—9 *months.*

78. V. E.—13.2, 13.8, 13.12; 14.10; 15.12; 16.14; 17.12; 18.10; 19.4 (12 *months*).
79. F. P.—15.8.....19.8 (12 *months*).

Age—10 *months.*

80. M. K.—10.0, 10.12; 11.8; 12.4; 13.0; 13.6; 14.2 (12 *months*); 14.10; 15.0; 15.8; 16.2 (14 *months*).
81. A. P.—11.9, 12.2, 12.12, 13.0, 13.6 (11 *months*)
82. S. T.—11.2, 12.7; 12.8; 13.10; 14.2; 14.10; 14.14; 15.9; 17.0; 17.3 (14 *months*); 17.4.....one month interval..... 18.6; 19.0; 19.4; 19.8; 20.0; 20.4; 20.9; 21.8; 21.8; 21.12; 22.0; 22.8; 23.0.....25.4 (2 *years*).

Age—13 *months.*

83. E. A.—14.14 (diarrhœa), 14.12, 15.4, 16.0; 17.2; 18.4; 18.12; 19.2.

Age—15 *months.*

84. G. S.—16.4, 16.9; 17.4; 17.8; 18.0; 18.10; 19.6 (18 *months*) (diarrhœa from the age of one year to fifteen months).

B.—Breast Feeding with Supplemental Undiluted Citrate Milk.

85. B. D., 10/52 year.—10.8, 11.4, 11.8, 11.14, 12.2, 12.10 (4 *months*).
86. A. E., 12/52 year.—8.2, 8.8, 8.14, 9.6; 10.2, 10.8, 10.14; 11.8 (5 *months*).
87. G. T., 4/12 year.—5.3, 5.9, 6.0, 6.8 (using three-quarters of a pint of milk supplemental), 7.0, 7.8, 8.2, 8.10, 9.0 (6 *months*).
88. C. E., 4/12 year.—7.2, 7.4, 7.12, 8.4; 9.2, 9.10, 10.0, 10.4, 10.10; 11.2; 11.12 (7 *months*).
89. E. A. (premature), 7/12 year.—Breast only, 8.8, 8.0.....supplemental.....9.5 (8 *months*); 10.8; 12.0; 12.8 (milk, 2 pints).

Correspondence.

To the Editor of Guy's Hospital Gazette.

A Grumble.

Dear Sir,—May I crave space for a gently captious letter? I have just read with pleasure your report of Mr. Steward's able lecture on Adenoids. I could only wish that you were able to publish many more such helpful papers—helpful, I mean to say, to us general practitioners. But there is a fly in the ointment. Mr. Steward refers to a case of mistaken diagnosis, and, moreover, states that it was a doctor who made the mistake. Let me humbly protest at a general practitioner's mistake being emphasized before students, most of whom, by the bye, will eventually become general practitioners. General practitioners make mistakes, as occasionally also do consulting surgeons and physicians. I might perhaps quote cases in point. I remember as a keen senior student I was almost taught to hold general practice in contempt. Into this disdained general practice I have nevertheless drifted. This elementary teaching fault is not peculiar to Guy's alone. But the sooner this rift is recognised by the lights of the profession the better for them, for us, and for our patients.

I trust my friend Mr. Steward will forgive me for taking a chance observation of his to hang a very well recognised grievance on.—I am, etc.,

GERALD SICHEL.

The Vine House,
Sevenoaks,
1st April, 1911.

[We deal with this subject in "Passim."—Ed. *G.H.G.*]

Infant Feeding in Germany and England.

Dear Sir,—Few articles in the Gazette are more interesting than those that find their way from Guy's men at Continental Clinics, and Dr. Cameron's account of infant feeding in Germany is no exception. Like everyone who has studied the subject, he yields an ungrudging admiration of the work the Germans have done on infant nutrition, but when he speaks of our own methods his tone is different. If I venture to occupy your valuable space in this connection it is because the subject of infant feeding, and with it the reputation of our English practice, have a special interest for me, and though Dr. Cameron, I am quite sure, is at heart equally jealous of our good name, he has painted us in last-century costume, and dated his picture 1911.

In England, he gives us to understand, infant feeding is little more than a system of diluting milk in accordance with an observation long since disproved (though it seems we cling to it), that the white flakes in an infant's stools are undigested protein. Further, we fail to

recognise the results of an excess of sugar or fat, and we pay but little attention to so important a matter as the proportionate composition of milk. These strictures cover a large part of the field of infant feeding, but, as if to strip us of our last shred of self-conceit, he tells us our methods are comparable to those of a keeper at the Zoological Gardens trying to rear some motherless litter.

In enlightened Germany, on the other hand, where, incidentally, our principles are "utterly refuted," he finds they have placed the feeding on a scientific basis. They plot out weight curves, and below trace a record of the daily consumption of food. By these combined observations they are able to diagnose and treat the conditions of whose existence we remain in ignorance.

As I read all this, Sir, I rubbed my eyes. Was it possible that what for years I have regarded as a daily experience was only a dream of things as they ought to be? Surely, I thought, Dr. Cameron, like another knight-errant who rode forth into the world what time

The sedge is wither'd from the lake
And no birds sing,

is held in thrall by the Teutonic charms of la Charité, and has eyes for nothing in our English ways that does not merit this heavy censure. It could hardly be that, unlike the knight-errant in the ballad, who was lulled asleep after meeting la Belle Dame, your contributor slumbered long and soundly before he sallied out.

Yet how far does his description represent modern English methods? I hesitate to speak of infant feeding "as practised in England"—*tot homines, tot sententiæ*—but as the German picture is drawn from hospital practice the comparison lies with English hospitals.

I thought that everyone in this country who has made a study of infant feeding knew that the little white flakes in an infant's stools are fat, and not protein. The contrary belief, which hailed from Germany, was exploded for us here in 1876 by the *Medical Times*, when it drew attention to Wegscheider's work in the *Centralblatt* of that year. In my experience at the Evelina the old-fashioned sequence of diluted milk, whey, cream mixtures, and peptonised milk has long since passed away. I doubt if in the latter years when I saw out-patients, or since in my wards, it has been used in a single case. On the other hand, the digestability of protein has been practically demonstrated not in dozens, but in hundreds of cases treated with undiluted cow's milk. Similarly with regard to the effects of sugar and fat. It is some years now since we were taught (by Dr. Eustace Smith, if I remember) to recognise carbohydrate dyspepsia—own brother to Mehlnährschaden, the dropsical—and since then we have paid attention to the proportionate composition of milk.

So, perhaps, after all said and done, our English methods may lift their chastened heads once again. But there still remain these double records of weight and nourishment which so impressed—nay, which so astonished our critic. It may be they are the last word in Continental scientific methods. In that case we shall feel gratified at the Evelina, where these records are in routine use. Our charts are an improvement, in more than one detail, on that shown in the Gazette, and, may I add, they were not imitated from the German, but designed as the next logical step in improving our English methods.—Yours sincerely,

DAVID FORSYTH.

74, Wimpole Street,
Cavendish Square, W.
9th April, 1911.

Mother-craft.

Dear Sir,—In his instructive article on Infant Feeding in Germany, Dr. Cameron writes:—"Especially I am impressed with the value of plotting out the curve of the daily weighings."

In London this work has been systematically carried out by Dr. Eric Pritchard in his infant consultations at the Marylebone Dispensary for six years, and from that beginning have arisen the "schools for mothers" in every part of the country, foremost of which is that of St. Pancras, instituted by Dr. Sykes, late Public Health Lecturer at Guy's. Great has been the saving of infant life thereby.

Will not the Governors of Guy's authorise the institution, as part of the new department for children's diseases, of a similar "school for mothers," for the sake of the mothers and infants of the Borough? Few things, moreover, would be so valuable for future general practitioners and for the nursing staff. It might be the beginning of an appreciation by the Medical School of the possibilities and requirements of preventive work in general medical practice, and it might enlighten clinicians on the work already being done by medical officers of health.—Yours faithfully,

F. E. FREMANTLE.

Zetland House,
near Guy's Hospital, S.E.,
5th April, 1911.

Papers by Guy's Men.

A. E. Boycott, M.A., M.D. Oxon.:—Lecture III. of The Milroy Lectures. On Ankylostoma Infection. Delivered before the Royal College of Physicians, 9th March, 1911.—*The Lancet*, 1st April, 1911.

C. H. Fagge, M.S., Assistant Surgeon to Guy's Hospital, and G. Newton Pitt, M.D., Physician to Guy's Hospital: A Case of Splenic Abscess. Operation. Recovery. With Remarks.—*The Practitioner*, April, 1911.

Alf. C. Jordan, M.D., Medical Radiographer to Guy's Hospital: Radiographic Demonstration of Lane's Ideal Kink. —*Idem.*

E. Ivens Spriggs, M.D., F.R.C.P. Lond.: Treatment of Gastric Ulcer.—*Quarterly Journal of Medicine*, April, 1911.

Notes from the Lorenz Klinik, Vienna.

By E. L. MARTYN LOBB, F.R.C.S.

Congenital Dislocation of the Hip.

In this disease the acetabulum is traingular in shape instead of circular, owing to the non-development of the superior quadrant of the bony wall. Further, the floor of the acetabulum is abnormally thick by reason of an overgrowth of articular cartilage, and the cavity is largely filled by an increase in size of the ligamentum teres. In connection with this is an interesting point in X-ray diagnosis. If the skiagram of a normal pelvis be examined, a U-shaped line will be seen in the bony shadow in the region of the acetabulum. This line, known as the "tear line," represents the projection on the plate of the floor of the acetabular cavity. In congenital dislocation of the hip this is thickened, and the lines are consequently seen to be further apart. In destruction of the floor of the acetabulum there is no actual bony defect visible on the skiagram, only the absence of the "tear line." This has been observed clinically—as in tubercular cases—and also has been conclusively proved to be true by the following experiments on the cadaver. First, a skiagram was taken of the pelvis, "tear line," present; next, the acetabular floor was removed with gouge and chisel; skiagram showed apparently normal pelvis except for absence of "tear line"; lastly, the excised portions of bone were replaced, with reappearance of "tear line" on the subsequent skiagram. The knowledge of the condition of the acetabular floor obtained by observation of this "tear line" is obviously of great value in many cases—particularly tubercular ones.

In order to base any reliance on such X-ray findings it is most important that there should be a standard position in which the photographs are taken. In this klinik all cases are taken lying on the back with the knees flexed, thighs together, and legs hanging over the edge of the table so that the popliteal space is in contact with the edge of the table. By this method a uniform standard is obtained from which comparisons may fairly be drawn, and, moreover, rotation of the femur outward is thus prevented, and the consequent fallacy of apparent anteversion of the head as shown by X-ray projection avoided.

In children under six years of age, congenital dislocation of the hip is treated by reduction by manipulation, and subsequent fixing in plaster with limb abducted to a right angle for 4—8 months. The rationale of this is as follows: In congenital dislocation of the hip the capsule is large and roomy, consisting of a larger posterior sac and a smaller anterior sac connected by a narrow isthmus. Over this narrow neck passes the tendon of insertion of the ilio psoas. These two factors form a great bar to reduction. If after reduction the limb be fixed in attitude of right angled abduction, it will be seen that the posterior part of the capsule is thrown into folds, so that it

Fig. 1.

Fig. 2.

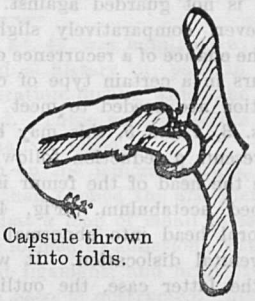
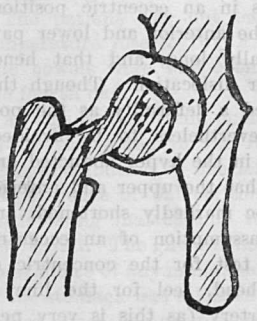
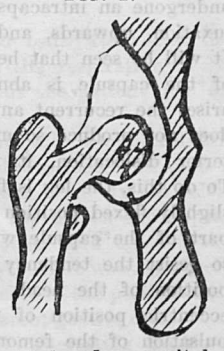


Fig. 3.



Reduced traumatic dislocation.
Concentric position of head of femur.

Fig. 4.



Reduced congenital dislocation.
Concentric position of head of femur.

Fig. 5.

Reduced congenital dislocation.
Eccentric position of head of femur.

will become permanently shortened during the period of fixation, and thus on removal of the plaster will prevent the occurrence of backward and upward dis-

location, and hold the head of the femur in place till a good bony resistance is formed at the upper and posterior part of the acetabulum. Notice that by this method the anterior part of the capsule is not affected, and therefore the recurrence of an anterior dislocation is not guarded against. The chance of this is, however, comparatively slight.

The chance of a recurrence of anterior dislocation only occurs in a certain type of case. Special methods of fixation are needed to meet this chance. Looking at Figs. 3, 4 and 5, this may be demonstrated. Fig. 3 represents a reduction following traumatic dislocation; here the head of the femur is reduced into a normally shaped acetabulum. Fig. 4 represents reduction of femoral head into abnormal D-shaped acetabulum of congenital dislocation. It will be seen that though, in the latter case, the outline of the acetabulum is a parabola, and not a circle, yet the femoral head is nevertheless in a concentric position, as in Fig. 3. Now looking at Fig. 5 we see that the head has undergone an intracapsular dislocation, or rather subluxation, upwards, and lies in an eccentric position. It will be seen that here the anterior and lower part of the capsule is abnormally long, and that hence arises the recurrent anterior dislocation. Though this does not produce so marked a deformity as the posterior dislocation, it is nevertheless to be avoided. To do this, the leg is fixed in the hyper abducted and slightly flexed position so that the upper and anterior part of the capsule will be markedly shortened, and so resist the tendency to assumption of an eccentric position of the head. To test for the concentric or eccentric position of the head, feel for the line of pulsation of the femoral artery (as this is very near the surface only light pressure should be used) and then feel for the outline of the head of the femur. If the head be in a concentric position, about two-thirds of the circumference of the head lies below and to the inner side of the artery, while the remaining one-third lies above and to the outer side. According to the extent to which the head lies in the eccentric position, these relations tend to be reversed to a greater or less extent.

In most cases it is safe to remove the plaster altogether after four months. To test the safety of this, gently flex and internally rotate the femur; if the femoral head remains in the cavity during this manœuvre, it is safe to remove the plaster. If it dislocates, the plaster must be reapplied for a further period of four months. Supposing it is decided to remove the plaster, a plaster cast fitting the back with leg in abducted position is made. In this the child sleeps at night. During the day the child is directed and encouraged to walk about.

In cases where both hips are affected, a bandage may be passed between the two knees so as to check hyperabduction while walking. The mother is instructed to massage the gluteal and external rotator muscles of the hip daily, and to push the leg up into a position of hyperextension and abduction twenty times night and morning. Under this treatment the legs slowly come into proper position for walking, while at the same time the formation of a good acetabular cavity is encouraged and the possibility of a recurrent dislocation reduced to a minimum.

A point in after treatment is illustrated by the following case—

Female child, æt. circa 7 years. Fixed in plaster after reduction for four months. Plaster then removed. Child now comes with pain in the affected hip. On examination, hip is tender to touch, fixed by muscular spasm in flexed position. Further flexion or abduction impossible. Joint slightly warmer on affected side.

This represents a condition of traumatic arthritis resulting from the presence of the femoral head against the rough osteophytic masses formed in the upper part of the capsule during the period of fixation. Further, this represents the commencing of a recurrent subspinous dislocation. From the pain, rigidity, flexion, and abduction this condition closely resembles and is sometimes mistaken for a tuberculous infection. The differential diagnosis rests on the occurrence of the following in tubercular disease:

1. Werndorff's sign. The œdema and hypertrophy of subcutaneous tissue.

2. Thickening of the capsule in tubercular coxitis.

Also, the tenderness on pressure is not characteristic of tubercular disease. It is not possible to detect excess of fluid in the joint in this type of case. In connection with this it is to be noted that the line of capsular reflection on the posterior surface of the neck normally leaves a triangular portion of the neck at the posterior end of the digital fossa uncovered. This fossa, which can be easily palpated in the normal state, is filled up when effusion into the joint occurs. By observing the condition of this, an early diagnosis of fluid in the hip-joint may sometimes be made.

Returning to the question of treatment in this case, the indication is to replace the leg in the original position of right angular abduction. Sometimes—as in this particular case—this is too painful to be carried out. The line of treatment to be adopted then, is to fix the leg in the position of greatest ease in a light plaster cast for a fortnight. At the end of that time the synovitis will be much less, and it will be found that the leg can now be placed in the right angle abduction position.

Filling of Bone Cavities.

After resection of portions of bone for any reason, autogenous bone grafts are being used with good results, and also great satisfaction is given by the use of the following wax plug for bone cavities—

℞ Iodoform	... ...	60 parts.
Ol. Sesame	... ...	40 „
Ol. Cetacei	.. ...	40 „

In place of the iodoform may be substituted a substance known as "Almatein," which is a mixture of

formalin and hæmatoxylin. This latter is preferred by many by reason of its drying and hæmostatic qualities. Either of these mixtures are solid at ordinary temperatures; before use they are rendered fluid by immersion in a hot-water bath.

In the filling of bone cavities with this wax, three essential points must be observed, or the wax will act as a foreign body and be discharged with suppuration:—

1. All diseased tissue must be removed. The least patch of granulation tissue will mar the success of the operation.

2. The incision must be through healthy tissue, and therefore has usually to be curved and a flap turned back to expose the diseased area.

3. The bony cavity left must be absolutely dry and sterile. To secure this, the operation is performed with an Esmarch's tourniquet applied, and the cavity may be swabbed out with 1 per cent. formalin, or adrenalin, or dried by the application of hot air.

If these precautions are carefully observed, this method of operating is attended with great success.

Genu Valgum.

Cases of genu valgum are being treated by a method of osteoclesis in place of osteotomy. The leg is fixed in a clamp at the edge of the table so that the level of the epiphysial line of the femur lies just over the edge of a block. By manipulations, using this block as a fulcrum, a separation of continuity is produced through the epiphysial line indicated by a soft crepitus. The position is then corrected, and the leg put up in plaster. By this method it is claimed that an open wound is avoided, and that the deformity is corrected at its actual site of occurrence. No evil results appear to follow this somewhat drastic treatment of a still growing epiphysis.

Talipes.

Talipes is mostly treated by wrenching with the hands, using a leather-covered wooden wedge as a fulcrum. Tenotomies and open tendon operations are rarely performed, while tarsectomies of any kind are practically never done.

Flat Foot.

In cases of adolescent flat foot, the pain caused by any attempt at the production of the normal position is well known, and the consequent rigidity is often a great bar to treatment by strapping, etc. This rigidity and pain is entirely reflex, and in such a case a few drops of 5 per cent. cocain solution is injected by means of an ordinary hypodermic syringe into the cavity of the mediotarsal joint. After an interval of ten minutes it is really quite remarkable to notice the *complete* disappearance of pain and rigidity, so that the foot may be strapped in a normal or even over-corrected position without any difficulty. The relief given by this injection lasts about forty-eight hours if strapping has been applied. After that, the strapping begins to slip, and unless a fresh lot is applied the pain and rigidity will return.

Some Cases of Intestinal Obstruction.

By T. B. LAYTON, M.S.

Case 1.—Mary Ann W., æt. 44, was admitted with a right femoral hernia, and a history of pain in the abdomen of three days' duration, during which she had not had her bowels opened. Three months before she had vomited a pint and a half of blood.

Mr. Rowlands cut down on the femoral hernia, but found the sac empty. He then opened the abdomen in the mid-line and found that a loop of small intestine had slipped through a hole formed by adhesions between the great omentum, broad ligament, and brim of the true pelvis, and had there become obstructed. Masses resembling secondary carcinomatous deposits were seen in the great omentum, and on examination a mass was felt in the stomach wall, which Mr. Rowlands therefore thought was a carcinoma.

The patient was put back to bed. Next day the temperature rose to 101° F. and the respiration to 32. The bowels were well opened, but the patient died on the fourth day.

At the post-mortem, pneumonia with a lobular distribution was found in the right lower lobe, and with a lobar distribution in the left lower lobe. In the pelvis was evidence of old peritonitis, the uterus and appendages being matted one to another and against the pelvic wall. The gut was healthy. There was absolutely no evidence of any malignant disease in the peritoneum; in the stomach was a healed adherent gastric ulcer.

This case illustrates several interesting points—firstly, that in considering the diagnosis of strangulated hernia the question of an associated hernia with some other acute abdominal conditions must be remembered. Other cases illustrating this point may be mentioned. In February, 1909, a woman was admitted under Mr. Dunn with symptoms suggesting intestinal obstruction of a subacute form, or even of fæcal impaction. After being carefully watched for twenty-four hours, a small femoral hernia was cut down upon, and the sac was found to be full of blood-clot. She had a ruptured ectopic gestation. In another case under Mr. Symonds in 1905, a hernia on the left side contained the pus of an appendicular abscess.

A third case resembling this last was under Mr. Symonds in June, 1904. The patient gave a history of a right inguinal hernia which had always been reducible until five days before. The bowels were closed and he had vomited. There was an irreducible inguinal hernia which was painful on pressure. Mr. Steward operated, and found a loop of small intestine in the sac and a little clear fluid. The gut was unchanged and was easily reducible. He commented at the time on the want of co-relation between the symptoms and condition found. The man died in about three hours time, and at the post-mortem an appendicular abscess was found in the

right iliac fossa; the clear fluid was analogous to the free fluid sometimes found in the abdomen in association with an appendix abscess, while the hernia had been rendered irreducible by the adhesions that had formed in the right iliac fossa.

Secondly, this case is an example of a life nearly saved by skilful surgery, and lost almost immediately after by pneumonia. The lobular distribution over one lobe suggests that the anæsthesia had something to do with this. The next case that I shall record is, however, a case of pure lobar pneumonia supervening on an operation.

But the most interesting point brought out by this case was the wrong interpretation put by Mr. Rowlands on the masses found in the great omentum. These were probably inflamed lymph-glands, secondary to the strangled piece of gut; but the association of a hard mass in the stomach naturally lead to a diagnosis of carcinoma.

As Dr. French pointed out when doing the inspection, if this patient had not died of pneumonia, she would have left the hospital with the diagnosis of an inoperable carcinoma of the stomach, and with a prognosis of a few months of life before her. Violet leaves or someone's plaster might have obtained the credit of curing a case of cancer which the doctors had tried to operate on and found incurable.

Case 2.— James D. E., æt. 54, who had been operated on for an irreducible left inguinal hernia, in 1903, was admitted on the 23rd February, with the story that up to the 21st he had been perfectly well. He then became constipated, and at 3 a.m. of the 23rd he began to vomit, and continued to do so until 7.30 a.m., when he was brought up to the hospital. There was then marked distension of the abdomen, with pain in both iliac fossæ, especially the left; the lower part of the abdomen did not move on respiration. His pulse was good.

The abdomen was opened in the mid-line, at 10 a.m., by Mr. Turner, who found that the small intestine was obstructed by numerous bands, so that the part two or three feet above the ileo-cæcal valve was gummed together "like a tangled piece of string." These adhesions were divided and the abdomen sewn up. This patient also contracted pneumonia, and died on the fifth day.

At the autopsy more adhesions were found, similar to those divided at the operation, and there was evidence of an old peritonitis in the left iliac fossa, where these adhesions were most marked, and where also the parietal peritoneum showed evidence of old peritonitis. A dissection of the site of the old operation for hernia showed that this had been successful, in that the abdominal wall was perfectly firm in this region, and that the internal oblique and conjoined tendon had become firmly adherent to Poupart's ligament. This was the result of a Bassini operation for radical cure that had been done. The right lung showed lobar pneumonia in a stage of grey hepatisation.

A reference to the old report showed that after the operation the patient had run a temperature which made them suspicious that suppuration had occurred, and the wound was examined on the fourth day to determine this.

This case, therefore, suggests a local plastic peritonitis as a cause of pyrexia after operations on obstructed or strangulated hernia; it further gave me a chance of learning by actual dissection what an excellent operation for the radical cure of inguinal hernia is that of Bassini.

The insidious onset of symptoms in cases of small intestine obstruction is seen in this case, and will be referred to again later.

Case 3.—Richard E., æt. 52, was admitted into the Poplar and Stepney Sick Asylum under my care on July 20th, 1908, with a history that for three days he had been vomiting a stuff that varied between green and yellow. He had not had his bowels open for five days. On admission his abdomen was normal, his pulse good at 62, and his tongue moist but furred. He was given some castor oil and white mixture. During the night the vomit became fæculent, the tongue was becoming dry, the pulse was rising, and the abdomen was becoming distended. He was also passing into a condition of low muttering delirium. I assisted Mr. A. E. Kynaston, who was acting as medical superintendent, to operate. The small intestine was found obstructed by numerous adhesions that kinked it in many places, but at one spot the kink was so marked as to cause absolute obstruction. In tearing apart the adhesions, the gut already narrowed, was torn into. We thought that to sew this up would so narrow the lumen of the gut as to give rise to obstruction at once, and so a couple of inches were resected including the torn and narrowed part. In the light of further knowledge I cannot help thinking this was wrong, and that the patient would have been given a better chance if the gut had been sewn up and the risk of stricture run. He died about eight hours after the operation. We thought the condition must be due to old tuberculous enteritis and peritonitis.

I would lay great stress on the bad prognosis in these cases of small intestine obstruction due to adhesions. Firstly, because of the insidious nature of the onset; in both these cases obstruction had been gradually setting in over some considerable period of time before admission. In such a case the patient's reserve power is used up before the serious condition sets in, and treatment is begun on an already impaired individual.

Secondly, the obstruction is not due to one single lesion which can be dealt with easily; rather it is a number of partial obstructions, this means much handling of gut, so that the operation is prolonged and it is hard to know when to stop. It also means that other similar kinks may still be present. Lastly, if the patient recover from this operation there is no guarantee that the adhesions will not reform and cause the same condition again.

Case 4.—George C., æt. 50, was admitted under my care into the Poplar and Stepney Sick Asylum on July 30th, 1908. Fifteen months before a radical cure for

a left inguinal hernia had been performed. The wound had suppurated. Four days before admission the hernia had again come down on exertion. The evening before admission he had had this reduced at the London Hospital, since when he had felt sick and had had some pain in the abdomen. His bowels had been opened. On admission his pulse was good at 82. A lump was felt in the left inguinal region, while beneath the scar of the old operation a small mass was felt, which was thought to be either fibrous tissue or a knuckle of gut. It was thought that he was either suffering from a carcinoma of the gut or from a "reduction en masse." A copious soap and turpentine enema was given, and repeated some six hours later. This relieved him for the time, and the lump in the iliac fossa got smaller, but became large again three days later. An enema was then ordered every other morning. On August 7th he was allowed up, and he was then sick twice in the next night and once in the day; the vomit was not stained with bile.

From that time onwards it was possible to keep the man well by giving him an enema every other day, but his bowels would not act without an enema, and if they were not kept open the symptoms of obstruction at once set in again. When an attempt was made to open the bowels by castor oil instead of an enema, more acute symptoms were at once produced. The lump in the iliac fossa came and went according as the bowels were closed or free. It was, therefore, considered to be due to fæces. When not present the sigmoid could be felt in its normal position, but in front of it was felt an indefinite cord-like structure running down to the internal abdominal ring. The one occasion when he was up and about the hernia came down, but was reduced without causing an onset of obstruction symptoms.

He was advised to have an operation performed, but the bad result of former one gave him but little faith in them, and he was going away to a convalescent home when another attack of obstruction made an operation necessary.

On August 30th I helped Mr. Charles Spunell, the medical superintendent, to operate. A most interesting condition was found, a much enlarged appendix epiploica in a hernial sac. This was adherent to the sac at the neck, and had caused a partial kink of the sigmoid; apparently whenever the sigmoid became at all loaded this kink became more acute, and a vicious circle was set up. The appendix epiploica was removed, and an attempt to perform a radical cure was then made. The hernial sac was, however, very firmly adherent to the surrounding cellular tissues, and was very friable. Hence it was impossible to ligature it, and so it was cut off and the neck sewn across. Some stitches were put into the canal and a gauze and tube drain put in. The wound healed without suppuration. The man has remained well since, but the left testicle has become hard and insensitive, as though it had atrophied. The obstruction symptoms in this case, which was a most puzzling one, need no comment.

I would, however, point out the relation between suppuration of a hernial wound, and recurrence of the hernia. This is one of four or five recurrent inguinal herniæ that I have seen since 1907, and in all of them there was a history and evidence of suppuration at the original operation. It has this further importance that when once suppuration has occurred the most perfect technique may be insufficient to prevent its occurrence in subsequent operations.

The only case that I have seen at all similar to this is the following one in which the omentum and not an appendix epiploica was the cause of the trouble.

Case 5.—Sidney J. W., a bookbinder, æt. 36, had h a left inguinal hernia for twenty-one years, which gave him no trouble until March 10th, when he was unable to pass his motions, and the swelling in the groin came down much larger than usual and caused him intense pain. Taxis was employed and the swelling reduced at about 3.30 a.m. on the morning of March 11th. This relieved him. The swelling, however, reappeared during the morning, and he came up to the hospital in great pain. During the interval the bowels had been open slightly and he had been sick once.

At the operation a piece of omentum was found stuck down to the post-wall of the sac, just below the neck. The upper part of the sac contained a loop of gangrenous bowel, the lower part in scrotum only blood stained fluid. A large loop of small intestine had descended on one side of this piece of adherent omentum, and had been returned into the abdomen on the other side, so that it was a case of strangulation by a band which was here pressed by the great omentum in a hernial sac.

Mr. Rowlands resected five feet of gangrenous gut, and the patient seemed to do well for the first three days. On the fourth day, however, the gut ruptured and he died on the next evening.

At the post-mortem it was seen that the gut wall at the line of suture had died, and the stitches had cut right through it.

I publish these cases by permission of the various surgeons under whose care they were admitted.

From the Gazette's Special Pathologist.

W. S. S. C., Balham.—This specimen contains some muco-pus, but no tubercle bacilli are seen to be present.

PATHOLOGIST.

Down Bros., Ltd., of St. Thomas's Street, London, S.E., have followed up their recent successes at the Brussels and Buenos Aires Exhibitions (Grand Prix, Brussels, 1910, and Gran Premio, Buenos Aires, 1910) by securing the Gold Medal (highest award) for surgical instruments and aseptic hospital furniture at the United Provinces Exhibition at Allahabad, 1910.

From a Ward.

The writer presents with all diffidence a few practical hints and purely nursing experiences in connection with pre- and post-operative treatment.

It is extremely difficult for the workers in hospital always to keep before them the patients' point of view and to grasp in any way the courage displayed in undergoing the most "uninteresting" of operations. There is still a lingering feeling at the back of the public mind that operations are more or less indulged in for the pleasure of the surgeons and "students," that "lumps" of all kinds could be dispersed with medicine. The fact that admission to a surgical ward carries with it the possibility of an operation must not be taken for granted. We are far too apt to treat the patients as if they had left all their intelligence at home, and certainly their senses of sight and hearing. Their own special ailment is of supreme importance to them, and they have practically nothing to do all day (and perhaps half the night) but to lie and consider their treatment and the doings and sayings of those upon whom they are depending for a return of health.

Much unnecessary anxiety is caused by patients overhearing and misunderstanding statements that may or may not have any bearing on their own condition. We owe them much gratitude for lightening our work by the kindly and uncomplaining way in which they conform to hospital rules, and undergo treatment often unexplained to them which they accept without question. The anæsthetic is more dreaded than the operation itself, and a fear often expressed by the patients is that the operation will be commenced before they are really "under."

When the anæsthetic cannot be given in an anteroom, absolute quiet should be insisted upon during its administration. Patients should be saved the horror of hearing remarks made upon their condition, and the statement that they are "ready" when they have not the physical capability to dispute it. This is by no means an uncommon experience.

The routine of preparation varies according to each ward, surgeon and hospital, but, on the whole, it is not so lengthy or drastic as was the case a few years ago. The ideal would be a few days' rest in bed with attention paid to the condition of the bowels, two nights before the day fixed for operation a special aperient given; the evening before, a hot bath, if possible, and then the compress applied before 6 o'clock, and, if permitted, some simple sleeping draught to ensure a good night. Contrast this treatment with a patient *wakened* to be compressed, perhaps at mid-night, and then dosed with an aperient, and thus robbed of any chance of sleep before the coming ordeal. The regulations of the hospital are the result of many years' experience, but it is difficult for those of us who do not go to bed until 12 o'clock or after to grasp that the patient's "night" is from 8 p.m. to 5 a.m. Every effort should be made to secure this time for sleep. However quietly the ward is managed at night, there are many unavoidable noises to rouse light sleepers: children crying, attention to fires, etc.

As a general rule, the patients are more comfortable, and post-operative rectal treatment is made more effectual, if an enema saponis is given six or eight hours before the operation. The patient should be asked to pass urine shortly before going into the theatre, and in all gynæcological cases a catheter should be passed and a vaginal douche given as a routine matter. Whatever kind of compress is undertaken, there are the two stages. The preliminary cleaning, when the hair is shaved and plenty of soft soap and ether soap should be used with warm lysol lotion. Collect the hair as you shave it, for if it once gets scattered over the skin it is not easy to manage. A nail brush should not be used for a woman's breasts or abdomen, and never for a child. For the sterile stage swabs of sterilised wool or small pieces of lint are used in biniodide of mercury in spirit. It is strongly recommended as the most useful germicide. To finish, methylated ether or absolute alcohol are used to remove all traces of grease. In this stage always work downwards, and never use a swab a second time. It is, perhaps, unnecessary to mention that for this stage the nurse's or dresser's hands must be surgically clean, or gloves can be worn.

The compress itself is generally a piece of sterile lint soaked in an antiseptic lotion, or a dry sterile pad. Some surgeons like the former applied at night and changed to the latter in the morning. Be sure to prepare a large area of skin. All abdominal compresses should reach from the breast line to well over the pubic region and to the hips on either side. Pay special attention to the umbilicus which often contains dry particles of skin. If for a hernia, the compress on that side should extend half way down the thigh.

In preparing for a breast operation, however seemingly small, the hair in the axillæ should be shaved, and the compress extend well under the arm, as also in the case of goitre or any extensive neck operations. When there is an open sore on the area to be compressed, it is a good plan to *exactly* cover the place with a piece of gauze dipped in iodoform and collodion, and then proceed with the sterile stage or iodine painting over the remaining skin. The iodine painting has all the advantage of extreme simplicity, and there is no doubt that it is a reliable antiseptic method of preparation.

One good formula is—

Iodine	30 grms.
Potassium iodide	40 grms.
Distilled water to 500 c.c.s.	

At time of using add equal parts of methylated spirit.

The site of operation should be shaved and washed with soft or ether soap. Remember that before the iodine is applied the skin must be quite dry. The iodine is applied with a brush or swab covered with a pad or piece of dry sterile lint. The iodine is again applied on the table, and for the last time after the stitches are put in.

To compress varicose veins, do the first stage of washing and shaving with the patient in bed. Then, with the patient protected with screens and the night-dress suitably arranged, get her to stand by the bed. The veins are thus more prominently brought to view and the compressing more easily managed. The sterile stage is then proceeded with, and the legs thoroughly dried with a sterile towel. Then paint the veins with a solution of carbolised Fuchsin with a very fine camels' hair brush that has been soaked in carbolic lotion. Use very little of the stain, and it quickly dries. Then cover the legs with *dry* sterile pads or pieces of *dry* sterile lint, and bandage in the usual way.

It is useless to compress baby hernias. Boracic fomentations can be applied some twelve hours before the operation, and changed each time the child is attended to. Just before going into the theatre the parts can be washed with some weak lotion, and a fresh fomentation put on. A collodion dressing or boracic powder dusted on the wound is, from the nursing point of view, the best dressing after the operation for these cases.

As regards the clothing, warmth is the most important point. Long stockings always, and if it is a rectal case, and the crutch position is likely to be used, and special leggings are not provided, pin each leg up in a small blanket to reach from the foot to the groins. Flannel gowns are the best, but in hospital these have generally to be reserved for renal and special cases. The arms of old people can be wrapped in wool bandaged on. If there is likely to be saline infusions into the axillæ, a "pneumonia jacket," made of gamgee tissue is useful. The "jacket" is a garment like a vest without sleeves, made to open down one side, and tied with tapes. Two holes are cut for the needles and tubing to pass through. Cotton wool tacked into old linen can take the place of the tissue. Remember in all your preparations, no garment must be tight or the respiratory movements impeded in any way. Hot-water bottles should be placed in the bed to await the patient's return, and one or two thoroughly hot blankets be in readiness. There is no restorative after shock to equal heat. If the theatre table has no water-bed upon it, severe or elderly cases should lie on an air cushion, and a rubber hot-water bottle be placed at the feet.

In preparing babies for operation, a good rule to follow is that the child shall be entirely covered with wool, or woolly garments, except the face and site of operation. It is most vitally important for children to be kept as warm as possible; the anæsthetic is a great shock to them, and also they have lost much natural warmth by the food withheld.

The question of feeding before operation is much more difficult in hospital than in private work. A number of patients must be prepared, and it is often not possible to know the hour of operation. The mental and physical state of the patient who had some beef-tea at 9 a.m., and is taken into the theatre about 5 p.m., can better be imagined than described. A light meal can safely be given four hours before the operation, and tea, bovril, clear soup, coffee with a very little milk, or, if ordered, brandy and water, can be taken an hour and a half before with great benefit.

Children are a great difficulty, and they must unfortunately starve longer. Milk is not easily digested, and they do not like beef-tea or bovril. The state of the tubercular children who have had previous operations is the worst of all. They are much more sick after an anæsthetic than any other class of patient, and sheer nervousness seems to make them unable to digest the previous meal. Babies fed by bottle, say two-hourly, should miss the last feed only, or try to make the time of operation coincide with the time of a feed. After the operation they can be fed with a diluted feed—half the strength of their usual quantity—immediately on regaining consciousness. The action of sucking seems to act as a stimulus.

Fortunately post-operative treatment is much more merciful in these days. The patients were kept lying flat on their backs with at most a small pillow for the head; water at first only given in sips, and then strict milk feeds only, for some days. Now, after "coming round," two or three pillows will make the patient comfortable, the breathing is easier, and the ache in the small of the back is relieved. A firm pillow under the knees helps to keep the position, and also relieves the strain on the back and abdomen. All mouth, jaw and goitre cases prefer the semi-sitting or sitting position, and an air cushion will greatly add to their comfort.

The true Fowler position for abdominal drainage is rather difficult to maintain, as, if the patient is very weak, she is apt to sink down. At least four firm pillows should be fitted well into the patient's back, feather pillows for the shoulders and head, a good stiff bolster is placed under the knees, with straps of webbing to fasten it to the head of the bed, and a hot-water bottle or some special apparatus fixed at the end of the bed so that counter pressure can be obtained by the feet. The only disadvantage of this position is that it makes any rectal treatment difficult, for there is no doubt that it is more effectual when the pelvis is higher than the head and shoulders. As a general rule, all patients who require extra fluid while in the Fowler position are treated by infusion into the tissues.

Another nursing change of treatment is the rolling of patients for washing and renewal of drawsheets. Lifting was a great strain for both patient and nurses. If the patient is asked to turn the head to the right, and the left arm and shoulder also, it is surprising how easily a heavy woman can be rolled on her side. A second nurse can support the abdomen.

A well-known surgeon says that in illness and after operation children should be allowed to find their own position. Little children after abdominal section seem wonderfully contented to lie quite flat in their cots. For these cases and after any operation about the hip or thigh, divided mattresses are most useful. They are thus kept quite clean, and do not dread the movement which necessary attention would otherwise cause them.

As regards the diet of adults, a good working rule for a ward is fluids of any kind until the bowels have acted. An aperient or enema is generally ordered the second night, then light puddings can be taken and thin bread and butter, followed later by fish and lightly boiled eggs. If post-operative sickness is not relieved by "long drinks" of water or soda-water, with or without two teaspoonfuls of soda bicarbonate to the pint, try sips of very hot water, a slice of lemon to suck, lemon juice in water, café noir (not too strong), freshly-made tea and some thin crisp toast.

The experience of the writer is that the patients who have the "open ether" method of anæsthesia with morphia given hypodermically forty-five minutes before, are seldom sick and make the best recovery from the anæsthetic. They seem to "come round" as if from natural sleep.

A Nursing Experience.

I was nursing in the little English Hospital of one of the most delightful of Italian cities, when, in response to a telephone message, I was sent to a patient at an hotel. The patient was a Russian, who spoke no English; but one of his party knew a little of the language, and she took me to his apartment, explaining a few details.

He had a high temperature, and looked very uncomfortable. The room was broiling hot, and all windows were closed. I was to sponge him, and then wait for the doctors' consultation. At 10 p.m. the verdict was pronounced, "small-pox," and we realised that difficulties were ahead.

The next day we were moved to an isolated room to await instructions from the official Italian doctor; meanwhile, I was vaccinated, and we were left absolutely alone. None of the patient's friends would come near him, and he could understand neither the doctor nor me. He soon became very ill and needed all my attention.

The following day the Italian doctor came and made me understand that we were to go away. The next day, at 5 a.m., an ambulance was brought and we were taken to a neighbouring island. The building to which we were taken had been built for cholera or small-pox, and had never been occupied. Two large rooms were ready for us, with just necessary furniture. We were indeed isolated, our sole communication with the outer world being the English doctor who visited every day. There we were—a Russian patient, an Italian waiting man, and an English nurse, each unable to understand the other's tongue.

The first day was long and I was glad to get to bed early, but I was soon aroused by a slight noise and hastily got up, to find my patient fully dressed. He was very tall and seemed a giant to me, for I am very small. Had his delirium been of the violent order I fear I should have had no chance to tell my tale. I succeeded in getting him back to bed, and afterwards I had my bed placed outside his door, so that for the few nights he was delirious I was at hand.

Food cooked by nuns in real Italian style was sent, and we had an abundance of eggs, milk, butter, rolls, broth, and coffee.

While the patient was on milk diet the food question was no trouble, but later I was sorely tried. He was dainty and his appetite required tempting. The doctor brought gelatine, arrowroot, Liebig, etc., and with the aid of methylated lamps I had to do most of the cooking. When he grew stronger his appetite increased, and he could rough it with me.

The weather was glorious most of the time, and we took meals out of doors. Directly after sunset it was bitterly cold. We had no fires, so sat draped in blankets and played dominoes until bedtime.

Something went wrong with the water pipes during the first few days, and we had to give up drinking water as it tasted so horrible. The doctor brought us over a bottle of fresh water each day to make tea.

During convalescence it was tedious at times. We were only allowed to walk in our own field. Great excitement prevailed one day when an airship sailed over our heads. We spent many hours with a rubber ball, playing at "catch" like children. We were happy, but longed to return to ordinary life.

It was just five weeks before we were disinfected, and oh! it was delightful to be back again in the outside world.

Looking back, the things uppermost in my mind connected with that quaint experience are—superb sunsets; a long chain of snow-clad mountains in the distance; the singing of larks; my Russian giant, ever thoughtful and kind; the faithful Giovanni, good-natured and lazy; and the fun we had in trying to make ourselves intelligible to each other.

Periodicals Received.—The Hospital; The Clinical Journal; The Nursing Times; South African Medical Record; The Indian Medical Gazette; St. Mary's Hospital Gazette; London Hospital Gazette; The Polyclinic; Prince Alfred Hospital Gazette; St. Bartholomew's Hospital Journal; The Prescriber; St. Thomas's Hospital Gazette; New York State Journal of Medicine; The Stethoscope; St. George's Hospital Gazette.

Pavy Gymnasium Club.

The Annual Competitions took place on Thursday, February 23rd, wrestling again being included. There was a good attendance and good sport was provided.

Boxing.—*Feather-weights*—W. R. Morris beat R. L. Donn. A good fight in which there was little to choose between them until the third round, when Morris scored well. R. W. King beat D. B. Morrish. King boxed in something like his old style and won fairly easily. *Final*—R. W. King beat W. R. Morris.

Light-weights—A. B. Bond beat C. Glover. Bond had more science on his side, but Glover put up a good fight and was only just beaten. E. A. Leviseur (a bye) boxed three rounds with the instructor, Jack Shine. *Final*—E. A. Leviseur beat A. B. Bond. Bond, though the better boxer and some six inches taller, was very nervous and was beaten by a very plucky opponent.

Welter-weights—J. W. Pasmore beat H. J. Leviseur. This was a very sanguinary affair and both were completely done up. One point separated them at the finish.

Middle-weights—J. S. Sutton beat W. V. Hooks. Hooks, who was conceding something in reach, caused some amusement by his back handers, several of which told. Sutton then did the leading and won.

Heavy-weights—W. R. Reynell beat H. F. T. Hogben.

In the Gymnastics the order, after a close contest, was—

E. S. Bowes	155	marks.
A. D. Buck	153	"
J. R. Barrowclough ...	143	"
S. Housden	111	"
P. Llarena	109	"

The foils, épée and sabres were all won by C. Bethencourt.

Wrestling.—The wrestling was not of a high order, owing to lack of practice.

Light-weights—J. Samuels beat F. Laborda; S. Purkis (a bye). *Final*—S. Purkis beat J. Samuels.

Middle-weights—J. R. Barrowclough beat S. Purkis; J. Samuels (a bye). *Final*—J. R. Barrowclough beat J. Samuels.

Heavy-weights—R. S. Stewart beat K. Day-Lewis. J. R. Barrowclough beat J. Griffin. *Final*—J. R. Barrowclough beat R. S. Stewart.

A very sporting exhibition boxing match then took place between Dr. Allport and W. G. Ross (Amateur Middle-weight Champion of England, 1897).

Inter-Hospital Competitions.

These took place at the London Scottish Headquarters, Buckingham Gate, on March 11th. Guy's only won one weight in the boxing; second place in the foils and first in gymnastics. So with ten points had to be content with third place, being beaten by London and St. Thomas'.

Boxing.—*Feather-weights.*—R. W. King beat R. Davy (London), beat K. T. Limbery (St. Thomas'). King was boxing very well in both bouts, and left no room for doubt, as to who had won.

Light-weights.—E. A. Leviseur beat H. W. Hills (University), lost to H. T. R. Moloney (London). Leviseur was conceding several inches to both Hills and Moloney, but fought very pluckily. Both fights were close, and Moloney, who drew a bye for the first round had little to spare at the end.

Welter-weights.—H. J. Leviseur lost to C. E. A. Goddard (University). Goddard had great advantage, both in reach and science, and won in the second round.

Middle-weights.—J. S. Sutton lost to J. F. Taylor (Thomas'). A very close fight, which required an extra round, when Taylor, who lasted rather better, won.

Heavy-weights—W. R. Reynell beat W. Stedman (University), lost to P. L. Foote (London). Reynell scored freely against Stedman, and knocked him out in the third round. The fight took it out of him rather, and Foote, who drew a bye for the first round, sent him in the first minute to the boards, where he took the count.

In the Gymnastics, Guy's finished up first, beating London by one mark:—

Guy's—A. S. Buck (97½) and E. S. Bowes (95). Total, 192½ points.

London—H. B. Parker (102½) and R. Bannister (89). Total, 191½ points.

University—F. B. Smith (95½) and J. Winterbotham (90). Total, 185½ points.

Thomas'—A. H. Ward (88) and C. S. Staddon (84½). Total, 172½ points.

Fencing.—C. Bethencourt took foils, épée and sabres and won a second in the foils.

Summary of Points.

4 points for a win and 2 for a second where four hospitals competed.

	Boxing.	Fencing.	Gym.	Total.
London ...	12	8	2	22
St. Thomas' ...	6	6	—	12
Guy's ...	4	2	4	10
University ...	4	2	—	6

Nursing News.

Matron's Office.

The result of the Nurses and Probationers' Examination in Materia Medica and Pharmacy is as follows:—

Nurses Bruce and MacManus; Probationers Achurch, Beardshaw, Blenkarn, M. Brooks, F. L. Brown, Bourdillon, de Carteret, Colston, Cronin, Douglas, G. Fletcher, N. Foster, Fothergill, Freshney, Greaves, Hewitt, Hirst, Hodgkinson, Hughes, Hutton, Jagger, Jordan, Keegan, Lane, Lay, Lear, F. Lewin, MacIntrye, McComas, Malonnek, Mansfield, Masters, Mül-

ler, Naylor, Oliver, Openshaw, F. Orchard, O'Rorke, Paul, Patterson, Pearson, Percy, Phillips, A. Prince. Probert, Quin, Randles, Rudd, B. Scott, Selby, Shann. Skou, S. Simpson, E. V. Smith, Spurway, Squire, Sterling, Strange, Sutherland, Templeman, Thomas, Trice, Vernède, Waterman, Weighill, Windley, and Yeoman.

Miss S. A. Swift, Vice-President of the Guy's Hospital Past and Present Nurses' League, will preside at the Annual General Meeting and Annual Dinner, which will be held in the Nurses' Home on Friday, April 28th, 1911, at 7 p.m. The Annual Exhibition of the Guy's Hospital Nurses' Photographic Society will be opened the same day at 4 p.m.

Sport.

Rugby Football.

GUY'S "A" v. ST. THOMAS'S "A."

The first match for the Junior Rugby Cup was played against St. Thomas's Hospital at Honor Oak Park.

Guy's lost the toss and kicked off against a strong wind. Play was rapidly carried to the St. Thomas's 25, the Guy's forwards being stronger and heavier than their opponents, with the result that at the end of five minutes' play, Covell ran right round his opponents and scored far out., the kick at goal failing. Following this success Guy's kept up the pressure, and two more tries were obtained, the first by Danby as the result of a forward rush, the second by Evans after a good bout of passing. Neither try was converted. With a lead of 9 points after as many minutes of play, Guy's slacked off very much, and by long down-wind kicks St. Thomas's kept the ball in the home 25 for the whole of the rest of the first half, without, however, being able to penetrate the defence.

The second half was a repetition of the first. Guy's scored three more unconverted tries through Flooks, Evans and Davies, and then slacked again, with the result that the Thomas's forwards began to dominate the play. Evans and Hunot both being forced to retire, Guy's, with only six forwards, were unable to keep their opponents out, and just before the close of the game the Thomas's forwards were able to bring one of their rushes to a successful conclusion. Final score: Guy's A, 18 points; St. Thomas's A, 3 points.

Guy's.—Day-Lewis (back); Flooks, O'Kane, Covell, Evans (three-quarters); Hunot, Davis (halves); Irvine, Stout, Davies, Whitworth, Purkes, Passmore, Muir-Smith, Danby (forwards).

GUY'S "A" v. ST. BARTHOLOMEW'S "A."

The semi-final Junior Rugby Cup Tie was played at Chiswick.

Guy's were without Evans, Hunot and Irvine, and kicked off against a strong wind. The forwards played exceedingly well in the loose, but were unable to obtain the ball in the scrum, with the result that the three-quarters had very little attacking to do, the few chances that came their way being spoilt by bad passing. However, just before half-time Bowes scored an unconverted try.

In the second half, Guy's, with a following wind, found themselves frequently in command of the ball. Rook, who was playing instead of Hunot, beat the defence again and again, most of the successful movements being originated by him. Tries were scored by Covell (2), O'Kane, Flooks, Purkes and Rook. Final score: Guy's, 4 goals 4 tries; Bart.'s, nil. Team:—

Guy's.—Way-Lewis (back); Bowes, Covell, O'Kane, Flooks (three-quarters); Rook, Davis (halves); Stow, Gibb, Liebson, Whitworth, Passmore, Purkes, Muir-Smith, Danby (forwards).

GUY'S "A" v. LONDON "A."

The final match for the Junior Rugby Cup was played at Winchmore Hill.

Guy's kicked off up the hill, and against the wind. The London forwards hustled the holders completely off their feet, with the result that Guy's were penned in their own 25 for the first twenty minutes, and a doubtful try was scored by the London as the result of a sudden break away along the touch line. Guy's then woke up, and with a strong forward rush began to attack. Securing the ball, several passing movements were started, and finally Evans, with a brilliant run, beat three of his opponents and made the game level. Shortly after this the same player again secured, and using his great pace, ran right round the opposition, and scored again. Neither try was converted.

The second half started well for Guy's, for a strong forward rush in which Stout, Danby, Purkes, and Whitworth were prominent carried the ball to the London 25, and from the ensuing scrum the ball travelled out to Flooks, who, running with much determination, scored near the corner flag. The rest of the match was very scrappy, both sides showing marked symptoms of exhaustion, but Stewart for the London managed to get over with an unconverted try. Final score: Guy's, 9 points; London, 6 points. Team:—

Guy's.—Day-Lewis (back); Flooks, O'Kane, Covell, Evans (three-quarters); Hunot, Davis (halves); Irvine, Stout, Gibbs, Whitworth, Purkes, Passmore, Muir-Smith, Danby (forwards).

Appointments.

Civil.

Crofts, A. Douglas, M.R.C.S., L.R.C.P., Certifying Surgeon under the Factory and Workshop Act, for the Windsor District of the County of Berks.

Francis, R. C. H., M.R.C.S., L.R.C.P., Resident Surgeon, Royal Sea Bathing Infirmary, Margate.

Pettey, Tom, F.R.C.S. Eng., Assistant Medical Officer, Princess Alice Hospital, Eastbourne.

Births.

BALL.—On the 6th inst, at Emsworth, Hants, the wife of Malcolm Ball, M.B., B.S., of a daughter.

BARBER.—On April 3rd, at 46, Friar Gate, Derby, to Dr. and Mrs. Hugh Barber, a daughter.

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Passim.

THE following appointments have been announced:—Obstetric Resident, Mr. H. C. Lucey; Second Clinical Assistant in the Throat Department, Mr. L. Bromley; Clinical Assistant in Skiagraphic Department, Mr. A. A. Greenwood; Chief Clinical Assistant in the Vaccine Department, Mr. G. W. Goodhart. Vacant Clinical Assistantships in several of the other special departments are announced, and some particulars of these valuable new appointments will be found in another part of this issue.

THE Secretaries of the Debating Society ask us to state that a general invitation to members has been received from the corresponding Society of the Royal Free Hospital Medical School, which is holding a Visitors' Night on May 6th. The subject is a promising one—"That fanaticism is essential to the success of any great cause," and we hope that many of our members will attend what should be a very interesting debate.

THE Residents are arranging to hold a Smoking Concert in the College Dining Hall about the middle of May. The date will be announced later, and tickets, one shilling each, will be ready shortly. Men who are just entering the Hospital at the opening of the Summer Session should make a point of going to this concert, where they will get an opportunity at once of entering into the social life of the Hospital, and of making friends. Men who have been to previous "Smokers" will not need any encouragement to go to this.

THE new Operating Theatres are rapidly nearing completion, and will shortly be available for use. One part of the alterations which the harrassed surgical ward-clerk will warmly welcome is the addition of a new lift on the surgical side. The present lift has carried coal and rice-puddings, and Bunch, and anæsthetised patients, and nurses, and dressers and ward-clerks, all together or separately, with an easy indifference. Usually easy, perhaps, one should say, for there have been some times of difficulty, when the lift has refused to move one way or the other, and on such occasions it would have been very valuable to have a second lift available.

LONDON UNIVERSITY men will have noted with pleasure that at the last Intermediate M.B. Examination, the results were published on the day the examination ended. The new Principal and Mr. Sampson, the Superintendent of Examinations, are greatly to be congratulated on this innovation, which it is to be hoped will become permanent and extended. As against the promptitude of the Conjoint Board, the dilatory methods of the London University in their publication of results have always been a matter for regret, particularly as several weeks waiting to know if he has passed may prevent a man entering the wards for three months. The new order of things will entail a good deal of hard work for the examiners, but perhaps that will make them adopt a more sympathetic attitude to that most overworked of men, the candidate.

Evidence of great personal interest was given by Dr. John Wade before the Royal Commission on University Education in London, and is published in the appendix to the second report of the Commissioners recently issued. It is Dr. Wade's desire that no policy of development of the teaching side of the University, such as recent years have witnessed, should be allowed to lead to the extinction of the external student. "I could never have taken a degree if it had not been for the University of London," said Dr. Wade. "I have heard students of Oxford and Cambridge speak of their University with great affection, and I assure you that I feel for my own University as great an affection as I believe it is possible for any man to feel for any institution . . . . When I was studying for my Intermediate examination I was a poor chemical assistant in the country, working at a chemical factory; and it was just this ideal of working for a University degree that became simply a guide to my life. I am perfectly certain that there are hundreds of students like myself at the present time, scattered throughout the country, and if you destroy the external side of the University you are preventing those students from going on."

An invitation for fifteen students of the school to the Presentation Day Ceremony at London University, on Wednesday, May 10th, at 3 p.m., has been received by the Dean. Any student desirous of attending the function should inquire at the Medical School Office.

We understand from the Adjutant of King Edward's Horse (the King's Overseas Dominions Regiment) that the regiment is now open to receive recruits. The qualifications for membership are birth or residence for at least five years in one of His Majesty's Colonies or Dependencies and the enlistment is for four years. Intending recruits should, if possible, get an introduction from their Agent-General, or from a friend in the regiment, but this is not obligatory. Communications should be addressed to the Adjutant, Capt. R. A. Coote, Duke of York's School, Chelsea, S.W.

Nursing News.

Matron's Office.

On March 18th, Nurse Kennedy left the hospital to take up her duties on the Private Nursing Staff, and Nurse Moriarty was appointed to succeed her as Staff Nurse in the Massage Department. Probationer N. Moore was appointed to succeed Nurse Moriarty as Head Nurse in Miriam.

On March 29th, Nurse Sowter left the hospital on completion of her three years' training, and Nurse C. Orchard, Head Nurse in the Surgery, was appointed to succeed her as Head Nurse in Patience and Samaritan Wards.

On April 7th, Nurse F. Ward, Head Nurse in the Isolation Wards, left the hospital on completion of her three years' training.

On April 7th, Nurse A. M. Coulton, Head Nurse in Lydia Ward, left the hospital on completion of her three years' training, and will shortly take up her duties as Sister at the Children's Infirmary, Liverpool.

On April 10th, Probationer Collett was appointed Head Nurse in the Eye Wards.

On April 11th, Nurse Stone, Head Nurse in Esther Ward, left the hospital on completion of her three years' training, and Nurse Todd, Head Nurse in the Theatres was transferred to Esther Ward. Nurse Haward, Head Nurse in Job Ward was transferred to the Theatres, and Probationer Boniface was appointed to succeed her as Head Nurse in Job Ward.

Pass List.

University of London.

SECOND EXAMINATION FOR MEDICAL DEGREES.

Part I.

Organic and Applied Chemistry.

Clark, J. E.	Purkis, K. N.
Hogben, H. F. T.	Sampson, B.
Kendall, N. E.	Simmins, A. G.
Lansdale, W. M.	Stallman, J. F. H.
*Liebson, A. S.	Stevens, J. G.
Punch, A. L.	*Tanner, W. E.

* Awarded a mark of distinction.

Part II.

Anatomy, Physiology and Pharmacology.

Annesley, F. D.	Evans, H. W.
Barrow-Clough, J. R.	Gould, H.
Bevan-Brown, F. V.	Hancock, A. C.
Cole, T. P.	Roberts, T. E.
Davies, W. L. Gwynn	Scott, E. D.
Dodd, F. H.	Webb, W. L.

The place of the Hospital in a Civilized Community.*

By LAURISTON E. SHAW, M.D., F.R.C.P.

All around us we see the clearest indications that great dissatisfaction exists with regard to the means at present available in this country to meet the requirements of considerable sections of the community who are in need of medical assistance. This dissatisfaction is expressed with almost equal strength on behalf of the public, large numbers of whom are said to fail to obtain the help they ought to have, and on behalf of the medical profession, many of whom are stated to be over-worked and underpaid. The two-sided nature of the complaint may, perhaps, be regarded as a hopeful sign by those who have faith in the possibility of ultimate improvement. The wrongs of a small class such as a section of the medical profession would be difficult to right if the community as a whole was unable to recognize that wider interests were involved, nor would the public easily secure the reforms which it regarded as desirable in its own behalf if it were faced with the apathy or resistance of an entirely satisfied profession. Whether the prospects are hopeful or not for a speedy and thorough removal of these unsatisfactory conditions there are sure signs of impending changes in many directions. The great interest aroused all over the country by the Reports of the Poor Law Commission, and by the attempts of the authors of its two main sections to secure public sympathy with their particular views, is already compelling many changes such as can be affected by departmental regulation, and must shortly result in extensive legislative action. The present government's promised scheme for insurance against sickness and invalidity will profoundly alter the conditions under which vast numbers of the working classes will find themselves when in need of medical aid. If one may judge from previous experience the probability is that in accordance with the spirit of our people, such changes as are made will be fitful and piecemeal, effected in this or that direction as urgent necessity demands, or as some point of little resistance allows, with no very clear idea of fitting the various items into an effective and harmonious whole. This prospect makes it all the more desirable that classes of the community who have special knowledge and experience of various departments of work connected with health questions, should lose no time in evolving for themselves a clear conception, both of the general problem before the nation, and of the relation of this general problem to its component parts, and of these several parts to each other. The medical profession must not only make up its mind as to the direction in which it desires reform to be guided in order that its own independence and power for good work shall be maintained and extended, but it must take steps to make clear to the public the practicability and sanity of its proposals.

Many sides of this broad question are now under the consideration of the British Medical Association, and are dealt with in the exhaustive report, recently issued to Divisions, on the organisation of medical attendance on the provident or insurance principle. To-day I propose to consider the small part only of the question indicated in the title of our discussion —the Place of the Hospital in a Civilized Community. If we desire to reach an agreement on this question, we must clearly not differ very widely as to our general views upon the aims of our civilization and the functions of a hospital. I do not think I shall have much difficulty in securing your acquiescence in four propositions with regard to the hopes and duties of a modern civilized community which are relevant to our present enquiry.

My first proposition is, "That no community can regard itself as civilized which does not recognise a common duty to render medical assistance to those of its members whose condition of health makes such assistance necessary, and whose economic position does not enable them to secure it." To agree with this proposition we need not be prompted by identical motives. To some the chief motive will be sympathy with suffering, to others the prevention of race degeneracy, and to others, again, the maintenance of the economic fitness of the present workers of the nation. With such a variety of motives impelling us there is little fear that this proposition will be unacceptable, save to an insignificant number of quite peculiar individuals.

The next proposition will almost as readily be accepted. "That it is undesirable for any civilized community, as at present organised, to provide without cost medical assistance for all its members, regardless of their economic position." The words "as at present organised" are introduced in order to enable this proposition

*Remarks made in opening a discussion at a Meeting of the Sunderland Division of the British Medical Association.

to be acceptable to any of our friends with advanced collectivist views. I would ask such to recognize that we are dealing with things as they are, and not as they may be in the distant future.

My third proposition is, "That every civilized community should encourage its members to make provision by some method of mutual insurance against those insurable risks which, without such assistance, they are unable to meet." As a general principle this is not likely to be denied to-day. There are few, if any, who agree with the view of a considerable number of our forefathers, who regarded life insurance as an immoral means of cheating Providence. To accept this principle does not commit us to approval of Pluvius policies for holiday-makers, or other extravagancies of insurance, not far removed from gambling, nor does it indicate sympathy with the proposal that the State should actively take part in the business of insurance. I ask your acquiescence merely in this general principle, and shall, of course, later apply it to the concrete and reasonable example of the provision by methods of mutual insurance against the costs of medical assistance.

My final proposition is one of very general application, which will, I hope, be recognized as having a distinct relevance to our subject—"That in every civilized community specialisation of effort is essential to effective performance." Please recognize that this does not say the greater the specialisation the more effective the performance. The great principle that one can have too much of a good thing applies in civilized communities as well as in those not yet weaned from cannibalism. We, in the medical profession, are not likely to fail to recognize the possible evils of excessive specialism. For the purposes of my argument I find it necessary to emphasize the fact that specialisation means, not only that certain individuals or institutions are recognised by the community as being set apart to do certain things, but that they are also recognized as being set apart not to do other things. To use a dentist to shoe horses is as great a neglect of our principle as to use a blacksmith to pull out teeth. The dentist may be able to shoe a horse, and shoe it well. From the point of view of the community, however, such use of a dentist is an extravagant disregard of an important principle. It is a principle which must be considered in defining the proper work of an institution as well as of an individual. Later I shall hope to show that this principle is disregarded in our modern method of using hospitals, and to indicate the necessity of paying strict attention to it if we are to succeed in assigning a proper place to these institutions.

I must now ask you to allow me to leave these four propositions for a time and to submit to you certain considerations with regard to the fundamental ideas underlying the true functions of a hospital. It must, at the outset, be recognized that there are several distinct aspects of hospital work, none of which can be neglected if we are properly to understand how best to use and develop these institutions. These various aspects may be briefly defined as the charitable, the economic, and the scientific. So closely intertwined have these different functions become that it is difficult to isolate them from each other. But I wish to emphasize what I believe to be the fact, that even if we could imagine a civilized community from which all poverty and need of charity were eliminated, so that everyone could obtain by adequate payment all that he required in the way of medical assistance, a hospital would still be as necessary an institution as a road, or a train, or a school. No intelligent community would be willing to forego the common advantage that accrues from the growth and dissemination of medical knowledge in a place where men of science meet to assist each other in the observation and treatment of disease; no community, even if composed entirely of millionaires, would disregard the convenience, the economy and efficiency secured by bringing together under one roof the complicated accommodation and appliances for investigating, nursing, and treating patients suffering from certain diseases. Whether we have regard to the economical and efficient treatment of the individual patient, or to the advancement of medical science, the hospital appears to be an essential factor in the accoutrement of the profession in its fight in the cause of health, apart altogether from any consideration of the poverty of patients. On the other hand it must be acknowledged that the original development of the hospital was entirely from the point of view of its function as a charitable institution. Poverty of a very dire character could alone induce a patient to risk the discomfort and dangers of the hospital, even as late as the middle of the last century. The hospital, as the most efficient instrument of professional treatment for certain diseases, is a comparatively modern institution. It is to a large extent the product of that scientific progress in medicine of which it is now so efficient a handmaid. Without the invention of the microscope, and our resulting knowledge of diseases of bacillary

origin, and the aseptic methods of surgery, the hospital might still have remained the resort only of those who lacked a bed to be ill or to die in. But for the extraordinary advances that have been made in medicine and surgery in the last generation, the hospital problem of to-day might have been the solution of the simple question of the Charity Organisation Society—"What evidence has this man shown of thrift?" The more clearly we adopt the conception of a hospital as a place where certain special professional services can best be rendered to certain patients, specially needing these services, the more difficult does it become to consider it as merely a charitable institution, strictly reserved for those below a certain level in the social or economic scale. The question has gradually become not, "is this patient poor enough to be admitted to the Hospital," but, "is he ill enough, or is his illness of the kind to require the special services which the hospital is organized to render?" The charitable function of the hospital remains, but it must needs become a very carefully discriminating charity, a charity which must consider not only the economic condition of the patient, but the exact nature of the medical services he requires.

We have now reached the point when I think we may ask ourselves, do we intend that the Hospital, whose place in a civilized community we are trying to define, shall continue to develop along its three parallel lines of charitable, economic, and scientific effort?

For my part, I hope that you will so decide. This is the direction of least resistance; it is an evolutionary and not a revolutionary movement, and it keeps our institutions in harmony with traditions of the past, of which, as a nation, we are justly proud. But we must move on, and move on quickly. The pressing need of forward movement on the scientific line has, in my opinion, never been better stated than by Prof. Osler in a recent address, which some of you probably heard him deliver, before the Northumberland and Durham Medical Society, under the title of "The Hospital Unit in University Work." I had the pleasure of reading the address in the *Lancet* for January 28th last, and would cordially recommend it to the notice of all interested in hospital administration. I will merely quote a few lines. "Speaking from a comparatively wide experience of hospitals," says Prof. Osler—and no man living, I fancy, has a wider—"I say unhesitatingly that the average level of comfort and care is no where so high as in this country, and in no small measure is this a tribute to the character and training of the women connected with them. But there are very glaring defects, foremost among which is the absence of proper laboratory accommodation in pathology, bacteriology, clinical chemistry, and microscopy." The first sentence gives us just that sense of pride and satisfaction with ourselves, which it is hoped will encourage us to take to heart the scathing criticisms to which the speaker later on submits our obvious failure, to make the hospital the perfect weapon it ought to be in the hands of the profession in its combat with disease. With what Prof. Osler says in this address about certain of the present arrangements being "antiquated and in every way ill-adapted to modern conditions" I thoroughly agree. I sympathize too with nearly all of the suggestions that he makes for improvement, and with his final conclusion as to the feasibility and necessity of reform I concur. "It can be done; in fact, it has to be done if British medicine is to adjust itself to the new conditions, and so maintain its splendid traditions." Prof. Osler believes an important step in enabling the hospital to develop itself along the scientific line is to secure more intimate economic relation between the hospital and the university. This may be so, but it could, of course, have an effect on only a very limited number of hospitals, and would entail much interference with vested interests. I look more hopefully to the effects of altered relations on the part of the hospital with the whole community, changes which are entirely within the power of the hospitals themselves to make, and which involve no complicated financial or administrative negotiations with other institutions. The highest development of the hospital along the charitable, the economic, and the scientific line, will only be possible when the hospital recognizes and takes its proper place in the civilized community. The modern hospital has indeed almost entirely failed, not only to recognise that it has a proper place in a civilized community, but even that there is any civilized community for it to have a place in. I hardly think I can justly be accused of exaggeration when I say that many of our hospitals take as little regard of the existence of surrounding agencies for the treatment of disease as a medical mission in Central Africa would take of the native medicine-men. Most hospitals seem to be entirely oblivious of the fact that in this country there is one of the most extensive systems of Poor Law medical relief in the world, that millions of workmen have contracted for medical attendance through the friendly

societies, that for other moderately poor people similar help is given by means of provident dispensaries, whilst private medical practitioners are prepared to sell their services to needy people at fees which are beyond the reach of comparatively few.

Something may possibly be said for the point of view of the medical missionary who regards the competing medicine-man as a negligible quantity. But surely it is the first duty of the Governors and Medical Staff of a hospital, in a civilized community, to consider in what way their institution can best supplement, and not replace, the efforts of the many legally qualified medical men working in various capacities amongst the surrounding population. If it is recognized that it is a proper and reasonable thing for the community to set up a Poor Law medical service, if we believe that poor people ought to be encouraged to join clubs and friendly societies and other provident agencies, if we do not believe that everybody who wants to get healed for nothing should be allowed to, and, finally, if we agree that to find one's right work and stick to it is the proper policy for institutions as for men, can it be doubted that the duty of the hospital is to co-operate with, and not to compete against all these other agencies. And at this point I fancy I can hear some hospital administrators protesting, "We do try to co-"operate, but it is so very difficult. If we see a "man who is obviously a pauper we tell him he "ought to go to the Relieving Officer, or a wealthy "man we advise to consult his own doctor, but it "takes longer to get these people to go away than "to treat them, and it might offend our sub-"scribers; and, after all, they probably only go to "another hospital. Indeed we have tried to co-"operate with provident dispensaries, and have "even posted notices about them in our out-"patient departments, but the provident dispen-"sary doctors don't seem very anxious to send us "their cases. We are always prepared to take "any patients sent by private doctors, if they are "not too well dressed, but we find that these are "generally the cases which our almoner reports as "unsuitable. Some of us have indeed instituted "a charge of 3d. for a week's supply of medicine "so as to avoid competing with the general "practitioner. But we can never forget that the "hospital doctors we have chosen are so very "clever, while all other doctors are so terribly "ignorant, that we cannot bear to think of any "poor people being allowed to choose their "doctors for themselves." Hospital administrators who are thinking and working on these lines may be trying to find the place of the hospital, but they have not found it yet. Co-operation and competition will not run in double harness. The private doctor and the provident dispensary cannot afford to send their more difficult cases for further help to the hospital, where the patient and his friends soon learn that they might as well have gone in the first instance, and saved their fees or their subscriptions to the dispensary. Co-operation between institutions to be successful must be complete. You must not run with the hare and hunt with the hounds. The wholesale merchant who opens a retail shop soon finds he loses the custom of retail dealers. The barrister who consented to receive clients directly would soon find himself neglected by solicitors.

May not the place of the hospital, which we are seeking to define, be stated in the following terms? The hospital should undertake to see and treat those patients only who, having already sought the assistance of a medical man, be he private practitioner, club doctor, officer of the Poor Law or of a provident medical institution, are found to require some additional special advice or treatment, such as they are unable to pay for, and such as is within the capacity of the hospital to supply. In other words, the hospital should be a second line of defence, or reserve, a purely consultative institution. Hospitals should provide for the poorer classes of the community just that additional assistance which a member of the wealthier classes, already under the care of a general practitioner, is in the habit of obtaining from a consulting physician, or consulting surgeon, whenever special advice or treatment becomes necessary. To be successful in providing these special services for these patients the hospitals must restrict themselves to this work. They must not also provide simple medical and surgical treatment for all comers who like in this way to save themselves the cost or trouble or indignity of securing treatment through other channels. They must, in fact, recognize the principle of specialization, which lays down not only that a special institution should be entrusted with special duties, but also that it should relinquish other duties which can be as well or better done by some other organization. I hope that I have established the point, at any rate, theoretically, that the ideal position of the hospital in a civilized community is to do necessary work which it is best fitted to do, and to leave undone work for which others are equally well or better fitted.

I must now approach the question more from the practical side, pointing out some of the

immediate benefits that would accrue from the development of hospitals on these lines, and answering some objections that have been or are likely to be raised. With regard to the feasibility of the arrangement I need say little. It would only be necessary for any hospital, preferably in agreement with its neighbours, but if not, then independently, to give notice that, on and after a certain date, patients only would be seen or admitted who were brought or sent by a medical practitioner who had already investigated the case and was in medical charge of the patient. In the past most hospitals used to, and at the present day many still continue to restrict their patients to those bringing recommendations from subscribers. In many cases, therefore, this reform would only entail the adoption of a different kind of restriction. Already a hospital in London is working on these lines, and finds the result satisfactory, though at present it has not persuaded others to adopt the same plan, and is therefore competing against the open-door system of many powerful neighbours.

What immediate advantages may be expected when this plan is more widely adopted? Advantages would be apparent both at the hospital and away from the hospital.

The hospital and all connected with it would be stimulated to the highest class of work. Every case would be entrusted to it because it had been recognised that some special skill in diagnosis or treatment was required. The general standard of scientific work must be of the best. It would be submitted to the criticism of, and make its appeal to, members of a profession well qualified to judge, and not to the public, who are incapable of estimating the true value of scientific medicine and surgery. The drudgery of long hours of out-patient and casualty work, and of hastily examining and prescribing for large numbers of patients suffering from trivial ailments would be removed, and the officers now thus employed would be set free to assist the visiting staff in unravelling the problems submitted to them by their colleagues outside the hospital. Investigations begun in the hospital could be continued by the outside practitioner in charge of the case, and ultimate results duly reported and recorded. The orderly regulation of the admission and discharge of cases could be more easily secured when each case was under professional care until the moment of admission, and would naturally on discharge return to the same care for the continuance of any necessary after-treatment, or for persistent observation. The cordial co-operation of the neighbouring practitioners would replace the thinly-veiled hostility with which it is but natural that the hospital is now regarded by many of them. In fact, doing its own work, and only its own work, the hospital would constantly become a more proficient instrument, and would secure the approbation and help of those engaged in similar but not competitive occupation. Away from the hospital the advantages would be equally apparent. Freed from the competition of their most powerful rival, agencies for the primary treatment of the ordinary diseases and injuries of the sick poor might be trusted at once to improve their organization. Those defects in the Poor Law medical service, which are at present largely hidden from public view by the promiscuous charity of the hospitals, would be brought to light and would be remedied. All forms of provident provision for medical attendance would be placed upon a better footing. The possibility of practitioners securing second opinions and operations by specialists on their poorer patients, while still remaining their patients, would add enormously to the interest of private and provident professional work amongst the labouring classes. No longer fearing the risk of losing their patients and their patients' friends by the proceeding, the reference of cases for further advice to the hospital would become extremely popular amongst doctors practising in the neighbourhood. Every interesting case thus dealt with at the hospital would provide valuable experience to the private practitioner, to the obvious advantage of all his other patients. In this connection I cannot do better than quote Prof. Osler again. This time he is dealing with Organization in the Profession, and his remarks made at Nottingham are published in the *British Medical Journal* for February 4th last. Speaking of County Hospitals as centres for the diffusion of medical knowledge he says :—

> "The Members of the Staff of the Hospital have the matter in their own hands, and what I wish to urge is the responsibility that each of you should feel to make his department a centre of information for the profession of the district. You who did the work would get the greatest good, as you will grow in wisdom and increase in value as sane advisers; the hospital would be benefitted as its influence would be helped, as working in the open with keen eyes upon you is a great stimulus in diagnosis and even in treatment; the general practitioner frequenting the wards and special departments will be able to maintain a circulation in his 'grey cortex,' active

enough to counteract the benumbing influence of routine in which way alone he may avoid the fate of the purely practical man who, as so well characterized by Disraeli, practises the blunders of his ancestors. And, lastly, the public will be the gainers, as men keenly appreciative of the rapid progress in medicine will render a better and more intelligent service—the public in this will find a return for the ungruding support which they give to the hospitals."

Please note that Professor Osler is speaking of a condition that ought to exist and does not. It does not concern us particularly to enquire by what means he hopes to secure it. By no possible means could it be secured to its fullest extent while the hospital maintains its present disregard of the work of others; whereas, on the other hand, this splendid ideal will inevitably and almost insensibly be achieved so soon as the hospital recognizes and takes its proper place amongst other medical agencies. Truly the picture seems so alluring that one wonders that this change has been so long delayed. Perhaps we can best understand the reason for this if we consider, in detail, objections that will almost certainly be raised in some quarters to the general adoption of this proposal, even at this late hour. We shall certainly hear that the diminution in the number of attendances of patients at the hospital will of lessen the support of subscribers. I cannot believe that subscribers, whether wealthy philanthropists or associations of working men, are so foolish as to be unable to distinguish between quantity and quality of work, or that hospital administrators are so lacking in persuasiveness as to be unable to turn a reform of this truly beneficient character to excellent account at their annual meetings, and periodic applications for subscriptions. A much more serious danger is ahead of the Hospital Treasurer if he neglects to watch the trend of public opinion and move his institution with the times. The public is determined that so far as that class of person is concerned who lacks a comfortable bed to be ill in, his needs shall be met by public funds if not by private philanthropic effort. Adequate accommodation of this sort will be provided by the State before very long by extension of, and removal of the pauper taint from, workhouse infirmaries. Public support will, indeed, be difficult to obtain for voluntary hospitals when this is carried out unless the philanthropist can be assured that his protégés will, in the charity, obtain something different from anything he can obtain in the municipal infirmary. A hospital placed in such relation to other institutions as we have just been considering will clearly be able to offer something, from a medical point of view, absolutely necessary in certain cases and altogether different from and superior to the State provision. Such a hospital can confidently be recommended to the philanthropist or the working man subscriber as an institution in the support of which he will not be merely relieving the rates. Those who are proud of our voluntary hospital system and desire to see its splendid service to the sick, as well as to medical education and research maintained and developed, may certainly be urged to support this particular movement for Hospital reform.

A second objection that may be raised is that certain cases that now come direct on their own initiative to the hospital, and receive there treatment of vital necessity, might under the new scheme fail to reach the hospital until too late for effective aid. This is one of those arguments that cut across organisation in all human affairs, and which, although specious, are entirely fallacious so far as the common good is concerned. I suppose it will be true of some cases. A patient not feeling very well, and being of an adventurous spirit, applies to the hospital, and being thoroughly examined is discovered to have a very early internal cancer, which is immediately removed. It is, of course, possible that this patient, under the new regime, coming first under the care of her private doctor, or the doctor of her friendly society or provident institution, might not secure such immediate and thorough examination, and might not be sent to the hospital until the disease was further advanced and had produced definite symptoms. Similar good luck may befal individual cases in all sorts of human arrangements which are entirely against public policy when their total effect on the community is considered. The most promiscuous distribution of coins in a crowd may occasionally afford opportune relief to a thoroughly deserving and unfortunate individual. Against this accidental individual gain we have to set to the credit of the present system a mass of preventible misery, pain, and disappointment which would be almost unbearable by those who have daily to witness it had not long custom led them to regard it as an inevitable accompaniment of illness and poverty. The hopeless chronic cases, painfully trudging week after week to the out-patient departments; the feverish babies brought time after time through the streets to the casualty department, until their broncho-pneumonia is sufficiently advanced to warrant admission and defy relief;

the unselected crowds of patients waiting investigation and handing on to each other their unrecognized zymotic diseases; mothers waiting whole days with their sick children, whilst the babies are left untended at home; the delicately nurtured, but poor woman on whose account the doctor wants further advice, but who cannot face the waiting and the crowd. Under the consultative system much of this misery and unnecessary hardship could be eliminated. The agencies for primary assistance would provide domiciliary treatment for those too ill and weak safely to go to and fro, and would arrange for the direct transference from the home to the ward in all cases of critical illness. Definite appointments could be made for out-patient consultations, and at least the child with obvious whooping-cough or ringworm would not be sent to mix with others in the totally indefensible unclassified casualty department.

For the one case, of which we hear so much, which might escape the necessary hospital treatment under the new arrangement, dozens equally suitable would get it who do not get it now. The argument of those who fear that some early cancers or glaucomas may escape detection would seem to be based on the view that a patient is a better judge of when he needs specialist advice than is a medical man. Surely all the evidence is against this. Hundreds of people now seek no advice of any sort until it is far too late, and one of the greatest advantages of putting the hospital into its proper place will be that far more patients will be induced to enter into contracts with general practitioners through provident agencies, and will thus be encouraged to call for medical help in the early stages of illness.

The last objection with which I can deal concerns only the small number of hospitals which are also medical schools. On behalf of these institutions it is stated that the lessening of the numbers in the casualty and out-patient departments will be bad for medical education. On this point I think I can speak with authority, as I have taught in out-patients' departments for nearly twenty years. I unhesitatingly affirm that in an over-crowded out-patient department nearly all the methods a student learns he would be better for not knowing. Leisurely and complete observation is essential for scientific work. The hasty and brilliant diagnosis by old hands in the out-patient department provides the worst possible example for students and young practitioners. I am confident that a little reflection will show that selected cases, such as will be provided by the proposed arrangement, will form much better material for teaching, whilst the lessening of the crowds of trivial and unsuitable cases will enable the teaching to be organised on a much more satisfactory basis. It may be necessary, and I am sure it would be advisable, to arrange for every student to gain systematic experience in the treatment of minor disorders by attendance at a provident dispensary. The general practitioner, seeing cases at these institutions, will be a better teacher of the management of chronic ulcers of the leg and other common ailments, than is the operating surgeon who spends most of his working life performing laporotomies. The association of the general practitioner with the education in the medical school would form another link in binding together the hospital staff and medical men working around the hospital, which Prof. Osler regards as such a desirable proceeding.

I have not chosen these three objections because I felt that I could most easily deal with them, though I hope you will agree that I have been able to answer them to a considerable extent. They have seemed to me the objections which have been most frequently and stoutly advanced by champions of the existing conditions. There may be others advanced to-day. I hope, however, I have established that, on the balance, the advantages of the proposed change entirely outweigh any possible temporary disadvantages. Whether we look at the question from a practical or a theoretical point of view, the first essential step in promoting the efficient treatment of sickness amongst the poorer classes is the fixing of the proper sphere of activity of the various agencies. The hospital is one of the agencies of such supreme importance that when its place is once fixed the task of adjusting other agencies around it should be materially lessened. With this object in view, I confidently bring this proposal before you, not as a startling brand-new project, which you may think over now and adopt in the millenium. It is the inevitable and necessary next step in the evolution of our great medical charities. Every hospital administrator would recognize this for himself, if he were not so busy scraping together money and dealing with the problem of overwork that he has no time to look about him, and see that in co-operation with the willing agencies outside and around his hospital lies ready to his hand the means, and the only means, of enabling him to find for his institution its proper place in the community.

Stricture of the Urethra.

CLINICAL LECTURE BY Mr. A. R. THOMPSON.

Gentlemen,—Since the establishment of a special department at Guy's Hospital, for the treatment of genito-urinary disease, there have been treated, as out-patients, or in Astley Cooper Ward, several cases of stricture of the urethra.

I, therefore, propose to ask you to consider with me, some of the more important of these cases.

Before, however, we consider these cases, I should like to name, and describe, some of the instruments which are used in the diagnosis and treatmenf of stricture of the urethra.

Here is a Guyon's "explorateur," which is a very useful instrument. One end is dilated and conical, the other end is dilated and shaped like an olive. The shaft is thin, and the instrument, being made of gum elastic, can not be used with any force. This instrument is very convenient for localising and measuring a stricture. It is solid. Hollow instruments, which are passed along the urethra, for the purpose of drawing off water from the bladder, are called catheters. There are three kinds in general use. 1. The olive headed. 2. The Coudé catheter, 3. The gum elastic catheter.

The olive headed catheter is a very useful instrument for exploring the urethra. The Coudé catheter sharply upturned at its bladder end is useful for introduction when there is an enlarged prostate, and also, when the presence of a false passage, which, as you will remember, is commonly situated upon the floor of the urethra, is suspected to exist.

The gum elastic catheter has a blunt end. It is not generally used in the genito-urinary department. I have not mentioned a metal catheter, as I consider its use, in cases of stricture, dangerous.

Urethral bougies are solid instruments made of whale bone, gum elastic, or metal. The whale bone bougies are very fine and are sometimes useful for passing a very narrow stricture, but of all urethral instruments they should be used with the greatest caution.

The metal bougies in common use are of two patterns, Lister's and Clutton's. Lister's bougies have an olive headed extremity. Clutton's bougies have a slightly pointed end. Clutton's bougies are, to my mind, the better instruments. They are slightly conical, and are standardised according to the French scale, *i.e.*, the circumference of the instrument in millimetres. They taper from x m.m. near their handle to x—4 m.m. at their point.

I will now ask you to consider some points in the anatomy of the urethra.

The urethra is the canal which conveys the urine, the semen, the excretion from Cowper's glands, and the secretion from the glands of Littré to the exterior. The glands of Littré are situated in the mucous membrane of the spongy portion of the urethra which is stratified like that of the membranous part. The prostatic portion is lined with transitional epithelium.

External digital examination of the urethra is possible in its penile and perineal portions, and its prostatic portion, may be, to a certain extent, palpated per rectum. The calibre of the urethral canal varies at different levels. It is largest in the prostatic portion, smallest at or near the meatus. There is a distinct cul-de-sac and fold of mucous membrane on the ventral surface of the urethra, just in front of the membranous portion.

Let me now give some warning as to instrumentation of the urethra. Be as aseptic as is possible. Let the glans penis and the propuce, and the parts around the corona glandis, be thoroughly washed with boracic lotion. Wrap lint soaked in boracic round the penis.

Catheters and other instruments should be dipped in a tall vessel containing sterilised oil, before being passed into the urethra. When not in use they may be kept aseptic by placing them in a covered tray in which there is some paraform, or substance capable of giving off strong formalin vapour.

Remember that neither you nor the patient have any use for a rough instrument. You do not desire to use a file. Remember that, unless you are prepared to regard the urethral mucous membrane as you would the conjunctiva of the eye, you had better not interfere with a patient at all who is suffering from stricture of the urethra.

Finally, remember that there are other ways of relieving such a patient than, to adopt a military simile, carrying the position at the point of the catheter.

We may now deal with some of the many patients who have been treated for stricture of the urethra in the Genito-Urinary Department.

The first case is that of a gardener, aged about 40, who presented himself for treatment. He had had recently some attacks of retention of urine, which were only relieved by the

passage of a catheter. Eventually, only a very small instrument could be passed, and, finally, no catheter could be introduced through the stricture.

His home is on the Chiltern Hills, where, as some of you may know, very cold winds may blow. He was exposed to all kinds of weather. In winter, if owing to the fact that he got rid of little fluid by the skin, he got rid of much fluid by the kidneys. Occasionally he allowed his bladder to become over full, and, as a consequence, got attacks of retention.

Now this patient was not ill enough to be admitted into the hospital. All the more care, in such cases, is necessary to guard against damage being done to the urethra of such a nature as to necessitate admission.

A No. 8 soft, olive-headed catheter was first used, in order to explore the urethra, and a stricture was localised six inches from the meatus, *i.e.*, in the usual position. The catheter, being quite soft, could not be introduced through the stricture; but, at any rate, two points had been cleared up. The stricture was localised, and no false passage was present. A conical metal bougie, No. 14–18 in size (French measure), was then introduced, and the stricture was passed without any great difficulty.

The passage of the bougie cleared up a third point, *i.e.*, the stricture was dilatable, and dilatable up to a reasonable extent. I say "reasonable" because some of you may be tempted to think that, as you have succeeded in passing easily a fair-sized instrument, you are justified in passing large instruments through the urethra.

Let me here strike two notes of warning. First, there is sometimes a considerable amount of shock associated with the passage of a catheter, so that you must be careful to pass as few instruments as possible upon an out-patient, and be satisfied if you have a moderate degree of dilatation. Secondly, you may, by dilating a stricture beyond a reasonable extent, eventually rupture it, a proceeding which will indubitably lead to bleeding, which may necessitate the admission of the patient into the hospital. So I was quite satisfied with the easy passage of the 14–18 bougie. Fourteen days afterwards No. 16–20 was passed easily, and six weeks after the first appearance of the patient a No. 18–22.

Now this is a typical case of simple urethral stricture, and I want you to consider with me, very briefly, the reasons of its successful issue. I think an important reason is that no small instrument was passed along the patient's urethra. The second reason is, that a soft instrument was first used. The third reason is, that when the position of the stricture had been localised, a medium-sized rigid curved instrument was passed without producing any spasm of the urethral muscle. When you are called upon to treat such a case of urethral stricture, I hope you will remember, first, not to use small instruments; secondly, to introduce, at the beginning, only soft instruments; and, finally, in order to get past the stricture, to use a medium-sized rigid curved instrument.

There are three additional points to be noticed in your treatment of such a case. See that the patient is warm. Syringe out the anterior urethra with warm boracic lotion. See that the glans and meatus are at any rate ordinarily clean.

The next case to which I wish to draw your attention is as follows: A healthy looking man, aged 63, was admitted into Guy's because of my failure to pass even a small instrument up his urethra. In the ward, after some exercise of patience, we succeeded in getting a No. 6 (English) catheter into the bladder, and drew off some very foul-smelling urine. Finally we put in a No. 8, but this caused a little bleeding. The same evening he had a rigor. After the passage of a No. 8 catheter the next day, he had another rigor in the evening. Dr. Eyre found the bacillus coli communis in the urine. When the patient was discharged a No. 8 catheter could be easily passed. Eventually in the Out-patient Department a No. 16–20 metal bougie was passed, and with this moderately full dilatation of the stricture, the urine has been free of bacilli, and an instrument can be easily passed without occurrence of a rigor. I am not prepared to state positively that rigors are always associated with sepsis; but, at any rate, this case suggests that the two conditions may go together.

The next case is illustrative of the good work which may be done by the administration of drugs in the treatment of stricture with partial retention. A man, aged 47, employed in the Sanitary Service, had an attack of gonorrhœa in 1883. Since 1906 he has had difficulty in passing his urine, and has suffered recently from dull aching, hyperpubic pain. Finally the flow has become lately so poor, that it is merely a continuous feeble dribble.

The bladder was palpable as far as a level reaching half-way between the umbilicus and

the pubis. At his first appearance I failed to pass any instrument, so the patient was admitted, and the following mixture prescribed:—

℞ Opii, ɱv.
℞ Belladonnæ, ɱv.
Syr. Aurantii, ʒji.
Aqua Chloroformi, adʒi.
G.m. ʒi. 4tis horis.

He was left lying quietly in bed. The following quantities of urine were passed by the the patient during the next four days:—

February 13th (day of admission)	ʒxxviii.
February 14th	ʒxxii.
February 15th	ʒlii.
February 16th	ʒxlviii.

The great increase of the quantity of urine passed on the third and fourth days showed the advantage of administering such valuable drugs as opium and belladonna.

Will you allow me now to indicate to you how a case of stricture with retention might be treated in the Front Surgery. The patient usually presents himself with the statement that he has a stricture. He has also retention. Do not, I beg of you, immediately open proceedings by advancing upon him with a gum-elastic catheter, of small size, provided with a stilette. You have, by so doing, accepted the patient's diagnosis without examining him thoroughly. Make an external digital examination of the urethra, palpate the abdomen, examine the rectum. If you can feel a stricture, and cannot feel a prostate enlarged, then, but only then, you may begin treatment by cautiously introducing, with aseptic precautions, a very soft and smooth olive-headed catheter of about No. 8 in size (English). There are several reasons for this size being chosen. Frequently the patient has been accustomed to passing, or having passed, a small instrument upon himself, and he is frightened if you produce a large instrument. There may be a small meatus, and it will not conduce to the maintenance of good relations between you and your patient, if you cannot succeed in passing the instrument through the meatus. Remember the catheter is for the purposes of exploration as well as for treatment. Some of you may ask, Why not use Guyon's explorateur? My answer is as follows. There is a chance that you may pass the stricture at the first attempt, in which case successful treatment is contemporaneous with complete diagnosis. Many men try to use a soft instrument as they would a rigid one, and attempt to manœuvre it into the bladder. I would rather you introduced it from between the patient's thighs, and gently rotated it as you pass it up the urethra. If you fail to pass the stricture after one or two gentle efforts, withdraw the catheter, apply hot flannels to the perineum and lower part of the abdomen, and administer some laudanum. After waiting an hour you may again make an attempt to pass a catheter, and you will frequently succeed. If you still fail I should advise the patient's admission. If an anæsthetic becomes necessary, do remember to use chloroform, and not ether, unless there is some special contraindication.

I shall now direct your attention to some cases who were admitted into the hospital as in-patients. I wish to refer to a case who was transferred to me very kindly by Mr. Rowlands. This patient had been having during the past few years increasing difficulty in passing his urine, owing to the gradually increasing contraction of a stricture of his urethra. When I examined him I found a stricture in the usual position, but failed to get a No. 5 instrument through. I was not anxious to pass any more instruments, so opium and belladonna was ordered, and the patient was sent home, instructed to go to bed, and to avoid getting cold until he could be admitted three or four days afterwards. Now I fully recognised that the patient was running some risk, but as he was passing all his urine, I felt that it was not likely that he would have an attack of acute retention before he could be admitted. On the fourth day after my failure to pass a catheter he was admitted into Guy's. As his bladder was completely emptied at each act of micturition, although this might be prolonged, he was kept lying quietly in bed, and strict injunctions were given against the passage of any instrument. We kept him in bed, and administered opium and belladonna for five days, when I decided to attempt internal urethrotomy.

I will now demonstrate the instruments devised by Maissonneuve for this operation, and which have been recently modified by M. le Docteur Georges Marion, of Paris. (Instruments demonstrated.) The patient was placed upon the operating table. No anæsthetic was at first given. One of the solid bougies was passed into the bladder, which had not been emptied for at least two hours. The instrument, which, as you see, is equal to a No. 3, English size, could be moved up and down inside the stricture quite easily. Chloroform was then administered. The detachable top

of the metal guide was then removed, and the guide itself fixed on to the bougie by screwing. The guide, following the bougie, was then passed through the stricture, the bougie being coiled up inside the bladder. The medium sized knife was then inserted into the notch. The knife was then pushed home and divided the stricture accurately in the mid line and dorsally. It was then withdrawn. The metal guide was pulled out and detached from the bougie. The straight metal rod was fixed upon the bougie, and was pushed into the urethra until it impinged against the prostate. The catheter provided with a hole at its end, as well as on the side, was introduced over the metal rod, and passed along it and the bougie into the bladder. The metal rod and bougie were then removed. The catheter, which was equal to a No. 8 or 9, English size, was then tied into the penis, and the urethra was gently syringed with hot boracic lotion until all bleeding had stopped apparently. The patient was taken back to bed.

I want you to notice particularly that the bleeding had stopped apparently; and there was no blood in the urine passed afterwards for at least eight days. On the ninth day the patient had a rigor and Mr. Mills washed out his bladder, and some altered blood clot and debris came away in the washing.

Subsequently, the patient had no more rigors, and I introduced easily a No. 20 Coudé catheter. The patient was discharged on the twelfth day after operation. Before discharge I passed a No. 18–22 metal bougie (French size) quite easily.

He now attends the Out-patient Department, where a No. 12 olive-headed catheter can be introduced easily. He has been directed to attend once a month.

Now what can we learn from this case? It is rather a long story. The question really centres round the apparent cessation of the bleeding, and the presence of the catheter in the urethra, as possible causes of the rigor. The bleeding had not really stopped, because Mr. Mills, eight days after the operation, as I have said, washed away some altered blood and debris.

It is the practice of some surgeons, after an internal urethrotomy, to keep a catheter tied in for only two days. They then remove it, and say that they have no rigors. But what about the stricture? Let us try to imagine what is happening in the urethra, after an internal urethrotomy has been performed, if a catheter is left in, apart from any question of septis. The incision made in the dorsal wall of the urethra is opened up, and whilst the catheter is in position is being covered with mucous membrane, which, to a certain extent, will prevent it contracting as it heals. If a catheter is not tied in the incision will simply heal up, as any such cut would elsewhere, and the condition after healing will be precisely the same as before, necessitating dilatation, which might be done almost as well by itself, as following upon an internal urethrotomy. If, however, you leave a catheter tied in the patient has a rigor. The cause of this rigor, or these rigors, is probably due to retention of blood in the urethra, as well as of secretion from the glands of Littré, which is not washed away by the passage of urine directly through the urethra. These retained products putrefy, and give rise to sapræmia and rigors.

The state of the case, as I conceive it, is as follows:—If, after internal urethrotomy, you leave a catheter tied in, the patient frequently has rigors. If you do not, the stricture is hardly cured.

We have had two or three successful results after internal urethrotomy, and this although some of the patients have had rigors. Can we prevent these rigors?

We have had made for the department some No. 9 Coudé catheters, with a slit made on one side. This slit is about $\frac{1}{16}$-in. broad and $2\frac{1}{2}$ to 3in. long. It lies opposite the wound made during the internal urethrotomy. The urethra can be washed out through the catheter and kept perfectly clean, and any blood or debris, which may be more or less fluid, has a chance to get away. In the case in which we have used it we had not even a slight rise in the temperature, although it was tied in for six days. One day I washed quite a large amount of debris away from the urethra, which, if it had been allowed to remain, might have produced sapræmia and rigors.

Up to the present we have considered together cases, where with a little patience some form of instrument can be passed. I must ask you now to consider those cases of stricture, which are associated with complete retention of urine, and in whom you cannot pass any instrument, and who are too urgently ill to wait even for an hour or two.

We have at present two cases in the ward of acute retention, associated with impassable stricture, and yesterday, March 20th, a third

case was discharged. The last case is of special interest and importance, as the history points very clearly to another cause of urethral stricture than gonnorrhœa, namely trauma. I have excised this stricture, removing about one inch of the corpus spongiosum, and a No. 11 olive headed catheter can be passed quite easily (five weeks afterwards). In this case, in order to relieve his acute retention, a suprapubic operation was performed, because I anticipated excising the stricture and did not desire to have an open wound liable to be infected from the rectum, near any additional wound, which it would be necessary to make for resection and suture of the urethra. The first of the other two cases is that of the man to whom, as you will recollect, we gave opium and belladonna, and who made considerable improvement under their influence.

He, however, became worse again and got acute retention. He is a large fat man, and is subject to bronchitis. We therefore performed a suprapubic operation. In any man subject to bronchitis, and who cannot easily be dressed, I dislike very much a wound in the perineal region. In his case Mr. Hopkins and Mr. Frädersdorf have treated him so carefully that a No. 16 catheter can now be passed through his urethra. In the second case I performed the operation devised by Mr. Cock, as there was slight extravasation of urine, and I thought there was less likelihood of additional sepsis occurring by this route than by the suprapubic route.

Allow me now to summarise some of the points in treatment of stricture which I have attempted to make. Remember that rest, opium, and belladonna, combined with warm applications, will enable you to pass a catheter in many cases in which, without their aid, you would have failed. Remember that chloroform is a more useful anæsthetic in urethral surgery than ether. Internal urethrotomy should be followed by the tying in of a catheter for, at least, six days. This catheter should have a slit in it to enable urethral discharge and blood to escape.

Gentlemen, inscribed upon the statue of Danton, near the front entrance of the Medical School of Paris, are these words from a famous speech of his: "L'Audace, encore l'audace, et toujours l'audace." These are splendid words, but I would warn you against them if you desire to get the better of a urethral stricture. "Doucement et lentement,"—with tact and steady care, are rather the words you will do well to bear in mind.

Guy's Hospital Christian Union.

Baslow Students' Conferences, 1911.

Dr. Tom Jays, who is well known to many Guy's men, has arranged to give a lecture in the Anatomy Theatre, Medical School, on Thursday, May 11th, at 5.15 p.m. It will be illustrated by lantern slides.

He will speak about the Summer Conferences of the Student Christian Federation of Great Britain and Ireland. These conferences are open to all students in College and graduates of not more than five years' standing. This year they will be held in July.

Dr. Jays can not only describe the more serious side of the conferences, but is inimitable in describing the lighter side of life in the Conference Camps.

Rugby Club Ball.

Balance Sheet.

Receipts.	£	s.	d.
By Tickets	224	2	6
Cash	3	6	0
	£227	8	6

Expenses.	£	s.	d.
Printing—Ash & Co.	3	10	0
Straker & Co...	3	13	6
Princes' Restaurant	139	12	0
Incidental Expenses	8	13	0
	155	8	6
Out-patient Tea (Contribution)	12	10	0
	167	18	6
Balance in Hand	59	10	0
	£227	8	6

Audited and found correct,
C. H. RIPPMANN.

Treasurer, W. M. MOLLISON.
Secretary, J. G. SANER.

Change of Address.

J. Macdonald Gill, M.D., from 18, College Street, Hyde Park, Sydney, N.S.W., to "Wyoming," Macquarie Street, Sydney, N.S.W.

W. S. Kidd, M.B., B.S., from 12, Montpelier Row, Blackheath, to 24, West Street, Scarborough.

F. B. Lowe, M.R.C.S., L.R.C.P., from 43, Thurlow Park Road, Dulwich, to Lister House, Grays, Essex.

Disseminated Sclerosis in a boy aged Six.

By Dr. H. C. MANN.

This case, on account of its unusual character, is published at the suggestion of Dr. Pitt. It is an unusual case for three reasons. First of all, disseminated sclerosis is generally recognised as being very uncommon in children—many authorities doubt whether the disease occurs at all in childhood—and Dr. Risien Russell, in his masterly and well-known article on the subject in Allbutt's System of Medicine, mentions that he has, himself, never met with a case of the kind.

Secondly, on account of its rapid course to a fatal termination, the boy's illness was instructive. Everyone is agreed that the duration of the disease is to be reckoned by years, and yet here is a case where nervous symptoms were present for only six months, while the earliest possible suggestion of cerebral trouble was an epileptic attack fourteen months before death, from which fit there was an apparently complete recovery.

Thirdly, the early appearance of mental symptoms and the rapidly progressive dementia not unnaturally led to difficulties in diagnosis, which actually remained in doubt until an expert opinion had been obtained upon the microscopical appearances of brain and spinal cord.

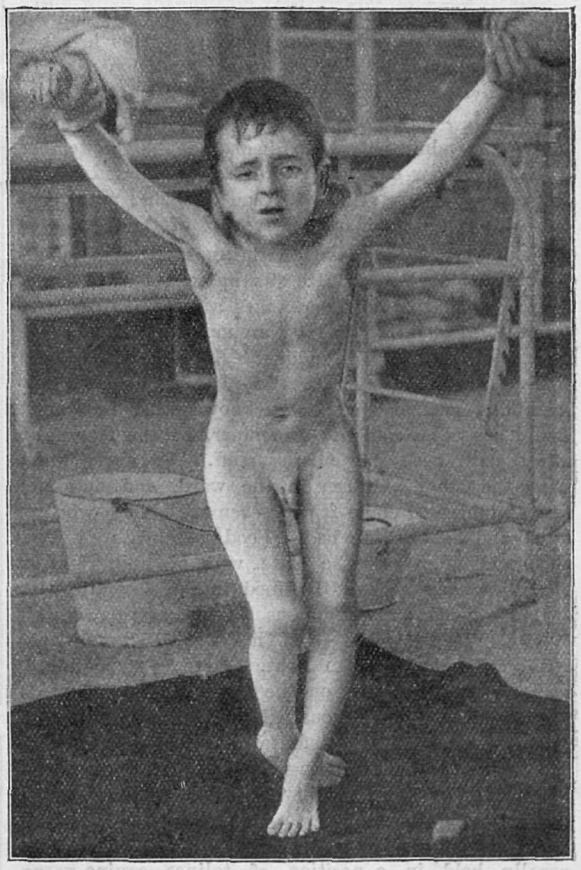
Edgar L., age six years, first seen at Out-Patients, August 19th, 1910.

Family History.—His mother's age is 53. She has had eight full time pregnancies, two children have died of pneumonia, the ages of the five other children alive are 24, 21, 19, 16, and 11 years, respectively. These children are all healthy. Patient is the youngest of the family. The mother herself looks older than her years, but she has had a healthy life, and has suffered from no serious illnesses. The father, aged 54, is a casual labourer, frequently out of work. He is also healthy, and neither in his family, nor in his wife's, is there any history of epilepsy, mental trouble or hereditary nervous complaint.

General Information.—The Lady Almoner reported that the family were poor, the home clean; the house damp, as it was in Battersea near the river, and the ground floor was occasionally flooded with a high tide.

Personal History.—He was brought up at the breast. Labour was not difficult. He was not backward in walking or talking. Dentition was not delayed, but the teeth soon became carious and fell out. He had measles and whooping cough in January, 1909, but no other illnesses.

He went to school at the age of five (June 19th, 1909), and it was reported on more than one occasion that he was a bright boy, distinctly above the average of London school children as regards general intelligence. On October 30th he had an unexpected fit, but was apparently quite well again next morning, and school was only forbidden for a fortnight. This fit was apparently epileptic in type, and was followed by a short period of unconsciousness. During the course of the next seven months he lived the life of a normal London child, made undoubted progress at school, being backward neither at work nor play, and often running errands, on his mother's behalf, to shops in the neighbourhood. It was in June, 1910, that he first complained of being tired, and in the course of the next two months weakness of his lower extremities became more marked; he was seldom out of doors, and not at all inclined to exert himself.



When I first saw him last August, he walked into the room with a "waddling" gait, as if his feet were tender. He took a certain amount of interest in his surroundings, answered questions very slowly, in monosyllables after a prolonged latent period. He was neither frightened or shy. His facial expression was one of extreme boredom. From the very first, those

of us who saw him were inclined to think that he was mentally defective, but such a suggestion was strenuously denied by the mother on more than one occasion. It was also reported that his appetite was good, and that he was cleanly in his habits. Examination revealed no paralysed muscles, there was no wasting; his knee-jerks were somewhat brisk; all other reflexes were normal.

As his limbs were tender to the touch, and there was a history of dyspepsia for some months past, I thought that he might be a case of late rickets, especially as the family had been in straitened circumstances for some time past. Mr. Higham Cooper, however, reported no bony changes when the boy was skiagraphed, and in the course of a few weeks the mental aspect of his disease became more and more prominent, the child becoming dull and apathetic—at times irritable, while the weakness of his legs became more marked and his hands tremulous; slight lateral nystagmus was also noticed. His arms were unaffected, and the hand grip on both sides was good.

He was admitted as an in-patient on September 30th, and a few days afterwards some enlarged tonsils and adenoids were removed. The following notes describe his condition in the early part of October:—

He is a spare boy, though the muscles seem moderately well developed. He sits up in bed with knees drawn up to the chin, and takes a certain amount of interest in what is going on around, but is quite undemonstrative. He is undoubtedly affectionate and fond of his mother. He talks a good deal in a slow mumbling manner, and makes known what he wants. There are occasional fits of temper, but he is usually affectionate with the nursing staff. He never plays with the other children in the ward, and does not seem inclined to make friends even with those who are quiet and confined to bed. Food is taken well. He sits huddled up over the plate, with his chin right in the plate, and shovels the food into his mouth with shaking spoon and tremulous fingers, resting on his elbows. He sleeps well at night. The pupils are equal and react well to light. There is some lateral nystagmus. The discs on the inner side are blurred; not apparently œdematous. Mr. Bickerton remarked that "one could say definitely there was no optic atrophy, but some question of neuritis." His legs are spastic, though the rigidity of the muscles is more marked at some times than others, and, as is usual, much worse with voluntary movement. The legs are usually held in a position of talipes equino-varus, though this can be corrected, whereas, earlier in his illness, the rigidity affected the anterior tibial muscles to a greater degree, the feet having been first of all flexed upon the legs. The knee-jerks are slightly exaggerated, and ankle clonus is obtainable, more easily on the right side. Both plantar reflexes are definitely flexor; cremasteric and abdominal reflexes are normal. Cutaneous sensibility is difficult to estimate, as the boy does not seem intelligent enough to give information; apparently there is diminished appreciation of tactile and painful stimuli in the lower extremities, but no loss of temperature sense. His gait is both spastic and ataxic with a scissor-legged progression, the feet being dragged along the floor. Romberg's sign is absent. The electrical reactions of the main groups of muscles in the lower extremities were tested and found to be normal.

November 15th.—He is now unable to stand or walk without support. When lying down and told to stand upright, he first of all gets on to all fours and then, with feet widely separated and knees together, attempts to raise himself, but is too weak to do so without assistance. Intention tremor is now very well marked in the upper extremities, and the movements of his arms are irregular and jerky; there are also various irregular movements of head and neck whenever he sits up, which he can now only do with difficulty. Mentally, he shows rapid deterioration. He recognises his mother, but is no longer affectionate, though she makes every effort to make him realise her love. He takes little or no notice now of the children in the ward, and besides omitting to call for nursing attention, he exhibits occasional bursts of crying or laughing for which there is no obvious interpretation. He seems to experience considerable difficulty in feeding himself owing to progressive weakness.

December 11th.—The child is getting progressively weaker. The pulse feeble and irregular. Respiration at times is difficult, and there are periods of cyanosis. He lies all day in a drowsy semi-stuporose condition, unable to feed himself, and only able to swallow fluids with difficulty. He has had some irregular twitching of the limbs of an epileptiform type. Anæsthesia of the lower extremities is well marked.

December 14th.—About mid-day he had a fit, with convulsive movements of face and arms, lasting about half an hour. Subsequently he was more comfortable, but later in the evening further twitching was noticed; respiration became laboured and the pulse irregular. He continued to be in much the same condition of extreme weakness, occasionally exhibiting irregular twitching movements of the limbs, and taking a variable amount of fluid nourishment until death on December 25th.

Between October 3rd and December 1st his weight diminished from 15.1 to 13.5 kilogrammes.

From a consideration of the history and progress of the case, two possibilities suggested themselves for diagnosis, namely, disseminated sclerosis or dementia paralytica. The early appearance and rapid progress of dementia which characterised the disease certainly suggested the latter of these alternatives, and furthermore the presence of a flexor plantar response with normal abdominal reflexes were additional points against a diagnosis of disseminated sclerosis.

Dr. Edgar Faulks, of Bexley Asylum, with whom I discussed the case, was, however, not in favour of dementia paralytica, though he admitted that the diagnosis would remain in doubt until microscopical sections had been obtained of the brain. He mentioned three unusual features. Firstly, that the average age incidence of juvenile general paralysis is at seventeen years, and that practically speaking the disease is non-existent under the age of twelve. Secondly, that marked spastic paraplegia, as in this case, is very uncommon, and thirdly, the presence of a negative Wassermann test which was obtained on two separate occasions, four months and one month before death. In his opinion this test is almost invariably positive with general paralytics.

Dr. Leatham, our pathologist at the Evelina, made the post-mortem examination. All the organs appeared healthy; the brain and spinal cord were kept for detailed examination. To the naked eye, the brain presented no changes characteristic of dementia paralytica: the convolutions were not flattened or atrophied, the ependyma was not granular, the pia neither thickened nor adherent, and there was no excess of cerebro-spinal fluid. During life the boy exhibited no stigmata of congenital syphilis, and no signs of this disease were found post-mortem.

The microscopical sections of the cortex were examined by Dr. Faulks and by Dr. Mott, pathologist to the London County Asylums, and the report was obtained that "the brain is certainly *not* that of a general paralytic."

Serial sections of the spinal cord showed irregular areas of sclerosis, not peri-vascular in distribution, in the lateral and posterior columns. No sclerosis was found in either white or grey matter taken from different parts of the cerebral cortex.

I must add, in conclusion, that many of the above notes as to the boy's behaviour with other children, relatives and nurses, are the careful work and observations of Mr. F. D. Saner, who was House-Physician last year at the Evelina.

Lawn Tennis Club.

The Trial games take place on Saturday, April 29th and Wednesday, May 3rd, when it is hoped that all men, especially fresh men, who intend to play this year, will turn out.

The prospects for the coming season are very bright. We shall have several new men up, including W. R. Reynell and L. A. Graham, and if the keenness shown of late is still maintained, we ought to have no difficulty in retaining both the Inter-Hospital Cups.

Saturday, May 6th 1st VI. v. Redhill. Away.
2nd VI. v. Malden. Home.

Correspondence.

To the Editor of Guy's Hospital Gazette.

Horseplay at the Final Rugby Cup Tie.

Sir,—My record will, I think, acquit me of being an over fastidious critic of students' enthusiasm. Rather, I would acknowledge my indebtedness to its buoyant influence; and of all my experiences in life I would confess that nothing left so great a void, on my retirement from the active staff, as the loss of that enthusiastic circle of students, thirsting for new information, which accompanied me round the wards or greeted me in the lecture theatre.

But when enthusiasm leads to riot, and riot to something like a free fight, permanently recorded by camera and cinematograph, and reproduced as characteristic of the behaviour of medical students in general, I think it is time in the interests of the medical students themselves, as well as of the profession they are hoping to join, that some limit should be put to this display of childish rivalry.

Unruly acts have from time to time occurred in the excitement of a hard-earned victory, and have been treated with judicious leniency by those in authority, but this display of rival clowns took place before the match and does not strike me as in any way contributing to good sport, but rather as indicating a tendency to revert to the days of Bob Sawyer and Benjamin Allen, when medical education was in its infancy.—Yours faithfully, R. CLEMENT LUCAS.

Infant Feeding in England and Germany.

Dear Sir,—Those who did not read my letter from Berlin, but read only the amusing reply which it has provoked from Dr. Forsyth, may, I fear, conclude that I have been guilty of making disparaging remarks upon our modern English methods of treatment. Perhaps, therefore, I may be allowed a few words of explanation.

I wrote, of course, not for Dr. Forsyth and those who like him "have made a study of infant feeding," but for Guy's students, in the Guy's Gazette, I spoke, therefore, of the commonplaces in both countries. I spoke of diluted milk as the common English practice and to that I must hold, though Dr. Forsyth tells me that it became obsolete at the close of the last century, apparently as a result of a change in his own Out-patient practice.

Though Dr. Forsyth seems to suggest otherwise, I was not ignorant that good results had been obtained by other methods, such as that of undiluted milk, both in France and at the Evelina Hospital for Sick Children. But I knew also that these methods had as yet had no very extensive trial in this country, and that certainly the old method of diluted milk remained that to which the text-books devoted most space, and with which every Student was expected to make himself familiar.

If my comparison of English and German ways was to interest Medical Students, it must be between common-place everyday English teaching and common-place everyday German teaching, and I resent the suggestion that, in making such a comparison, I presumed to pass judgment upon the work done in our great English hospitals. My letter consisted of descriptions of a few infantile disorders as seen by German eyes, such as occur in any one of half a dozen popular German text-books. I copied an example of the curves of daily weighings and diet charts with which such books are profusely illustrated, not because I indulged any hope that such things would be strange to anyone in Dr. Forsyth's position, but because they would be new to the majority of students at Guy's, where, as Dr. Forsyth is very well aware, babies are weighed weekly and not daily.

The comparison between the Evelina and "la Charité," which Dr. Forsyth finds such satisfaction in making, found no place in my letter at all. It would indeed be strange if we at Guy's had not a high opinion of the work done at the Evelina, and since it appears our national "reputation" and "good name" are endangered, it is, perhaps, well that Dr. Forsyth has chosen to repair the damage and restore our self respect by a reference to his own practice in its Wards.—Yours truly,

H. CHARLES CAMERON.

6, St. Thomas's Street, S.E.
24th April, 1911.

7th South African Civil Surgeons' Dinner.

Dear Sir,—The seventh of these dinners, now held every third year, is fixed for Thursday the 1st June, at the Criterion Restaurant, at 7.45. Mr. Cheatle, C.B., will take the chair, and Field Marshal Lord Kitchener has accepted an invitation to be principal guest.

We hope a special effort will be made by all who served as civil surgeons and dressers in the South African War to attend and give a warm welcome to our former Commander-in-Chief.

Notices will be issued by the end of the month to all on our list. We hope those who do not receive any communication will write and inform us of the fact.—Yours faithfully,

C. GORDON WATSON,
F. E. FREMANTLE,
Hon. Secs.

123, Harley Street, W.
11th April, 1911.

The Maligned G. P.

Sir,—I have read Mr. Sichel's letter and your remarks in this week's Gazette with some interest, as I have known, as all Guy's men must, how the G. P. is held up to contempt; but when Mr. Sichel has been in practice as long as I have, he will find there is plenty of opportunity of seeing mistakes made by the consultant. I will not say anything about the H.-P.'s and H.-S.'s, and the first and second year's students who deride the poor G. P.; they are much too clever to make any mistakes, as we poor old fools find out when they come into the country. Mr. Sichel seems to live in a part of the country where it is likely that some of the shining lights in the consulting world have country seats. I find these gentlemen frequently do a little gratuitous general practice among the poor, and that they are quite as clever, although not quite so amusing, as the prescribing parson and chemist, who also carry out this charitable practice. Quite lately a consulting surgeon from that wonderfully large district, Cavendish Square, which seems to take in any part of London within a mile of it (Harley Street is now, I believe, only inhabited by dentists and anæsthetists), diagnosed a case as colic, and was surprised to hear that I succeeded in aspirating his left chest and relieving him of two quarts of fluid. Then a physician from somewhere near Portland Place diagnosed and treated an incipient hip as rheumatism. These, of course, are mistakes that are excusable, because both these gentlemen were off their usual groove, but some of these gentlemen seem to make mistakes at their own job. A short time ago an "eye specialist," as he was called by the patient's mother, treated a child who was suffering from congenital obstruction of lachrymal ducts as a case of ophth.; and now I really feel as if the poor G. P. is not quite such a fool as I was always taught to believe him.—Yours etc.,

A NON-DELUDED M.R.C.S. & L.R.C.P.

Midwifery Tips.

Dear Sir,—Perhaps as a G.P., who has attended over 3,000 cases, and amongst that lot lost only two, from no fault of mine, I may give one or two tips as the result of my little experience. I never use ergot until after the expulsion of the placenta, and very seldom then; but if the pains hang fire, substitute Quinine, gr. v., repeated as required.

If the pulse flags, and pallor ensues, sighing, etc., indicating P. P. hæmorrhage (especially during or after administration of $CHCl_3$), I inject ergotinine with plenty of liq. strych, perform artificial respiration, &c., depressing the head, elevating the legs, &c.

At one time it was often necessary to pass a catheter (beastly business) next day after birth of child after a rough delivery; now I never do it, because I substitute tib. opii., gr. v. or tab. doveri, gr. x. six to eight hours after birth, this overcomes the spasm and disinclination of patient to micturate. To relax the os I have given chloral hydrate or painted the os with sol. cocaine with benefit.

This particularly holds good in abortions. Of course, one has to pass a catheter frequently before using forceps. But although I have applied forceps some hundreds of times, I always leave things to nature so long as there is a good chance of her doing the work and not endangering the life of mother or child.

It is always good practice to give an enema to empty bowels before recourse to forceps.—I am, your faithfully,

W. H. SPURGIN.

Newcastle-on-Tyne.

The Ideal Kink.

(An unfortunate, but rather happy, misprint in our last issue occurred among "Papers by Guy's Men," where the subject of Dr. Jordan's paper was referred to as "Lane's *Ideal* Kink.")

Oh! ye who murmur that the world is sad,
That things material hold us in their sway,
Dry now your eyes, and let your hearts be glad,
And list to Dr. Alf. C. Jordan's lay,
Anent the Radiographic Demonstration
Of the Ideal Kink of Constipation.

Nay, and I lie not, "Ideal" is the word—
For confirmation *vide* last GAZETTE—
To contradict were foolish and absurd,
The truth herself has never lied as yet.
And the X-rays, George Washingtons of Science,
With Truth hold an insoluble alliance.

Scoffers may scoff and talk about a fad,
What cares the man who erstwhile had a pain;
His brow is clear, it really isn't bad
To have inside the "Ideal Kink of Lane,"
Especially when Dr. Alf. can show
What beauteous things inside a man may grow!

* * * * *

Oh! poet, how we hate to cut you short,
To stem the flowing tide of panegyric,
And yet stern duty tells us that we ought
To stay betimes your quite misguided lyric,
Because a printer's error gave the light
To that "Ideal" Kink of which you write.

[Ed., G.H.G.]

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Disease in Bone, and its Detection by the X-rays. By E. W. H. Shenton. (Macmillan & Co.) Price 4s. 6d.

Mr. Shenton describes to us in this excellent little book a number of radiographic appearances, which his exceptional experience has shown are of practical as well as of theoretical value in the diagnosis of bone lesions.

The X-rays, although no longer an innovation, are so little appreciated and understood by those whom they could really help, that a book such as this which deals entirely with their diagnostic value is of the greatest possible service. Mr. Shenton puts before us not what we ought to see, but we shall see—if we look; and he has done a great service by making it worth our while to look, and to look intelligently.

The book is admirably printed on good paper, and is excellently illustrated. We are shown the utter uselessness of the "pretty pictures," that are so much in demand, and are given instead faithful reproductions of what is really to be seen. Among a number of new facts pointed out, we noticed particularly the "blurred or fluffy" appearance presented by tuberculous lesions under the rays; the characteristic "definition" of osteo-arthritic changes; and the "pelvic arch," which is of such great value to the inexperienced in diagnosing abnormal disturbance of the relation between femur and pelvis.

The book is short, too short, we would say, but its very shortness demands that it should be read by all whose work entails an intelligent appreciation of the results of X-ray examinations.

The New Appointments of Qualified Clinical Assistants in the Special Departments.

1. The following regulations have lately been approved:—

(*a*) In each Special Out-patient Department, including the Departments for Actinotherapy, Skiagraphy, and Vaccine Treatment, but excluding the Obstetric and Skin Departments, there shall be *one* qualified Clinical Assistant, who shall be styled the *Chief Clinical Assistant*, and he shall be responsible for the conduct of the Department in the absence of the Physician or Surgeon to the Department. He shall be unpaid, except in the case of the two Eye Departments, and shall be appointed for twelve months.

(*b*) In addition, one, and, if desired by the Head of the Department, two *Ordinary Clinical Assistants* may be attached to each Special Department, whose duty it shall be to assist in the examination and treatment of the patients, and carry out investigations as may be directed, but they shall not be responsible for the conduct of the Department in the absence of the Physician or Surgeon to the Department. The Clinical Assistants shall be unpaid, and shall be appointed for six months.

2. The Clinical Assistants are appointed by the House Committee upon the recommendation of the Medical Committee.

3. A Medical Registrar may hold no additional appointment which entails his absence from the Wards or the Clinical Laboratories in the morning.

4. The Residents are ineligible for the post of Qualified Clinical Assistant in the Special Departments.

5. The names of applicants for the Chief and Ordinary Clinical Assistantships in the Vaccine Department shall be submitted to the Bacteriologist, who shall report on all of them to the Medical Committee.

6. In the case of an applicant who is not a Guy's man being appointed to any of the Chief Clinical Assistantships or Ordinary Clinical Assistantships in the Special Departments, he shall be required to pay on appointment the fee for hospital practice for the full period of the appointment.

7. The Chief Clinical Assistantships run from January 1st to December 31st in each year, and of the Ordinary Clinical Assistantships, one runs from January 1st to June 30th, and the other from April 1st to September 30th.

8. Vacancies in the Clinical Assistantships in the Special Departments shall be advertised in the Colonnade and in the Guy's Hospital Gazette.

9. The present holders of Clinical Assistantships in the various Special Departments are shown in the following table:—

Aural Department.—K. H. Digby (Chief).

Genito-Urinary Department.—C. H. Mills (Chief); L. Mandel (Ordinary).

Neurological Department.—W. Johnson (Chief); P. S. Price (Ordinary).

Ophthalmic Department.—W. Anderson (Chief); A. B. Zorab (Chief); J. S. Bookless (Ordinary); L. Mandel, (Ordinary).

Orthopœdic Department.—W. W. Cook (Chief); W. H. Miller (Ordinary).

Skiagraphic Department.—A. A. Greenwood (Ordinary to Mr. Shenton).

Throat Department.—W. M. Mollison (Chief); T. B. Layton (Ordinary); L. Bromley (Ordinary).

Vaccine Treatment.—G. W. Goodhart (Chief).

Papers by Guy's Men.

Harold Chapple, F.R.C.S.: Chronic Intestinal Stasis treated by Short-circuiting or Colectomy. A Brief Study of the Life Histories of Fifty Cases.—*British Medical Journal*, 22nd April, 1911.

Norman Flower, M.A., M.B. Oxon., with a Note by Sir Samuel Wilks, Bt., F.R.S.: Evidence of Recent Severe Illness afforded by the Nails.—*British Medical Journal*, 15th April, 1911.

F. E. Fremantle, M.B., Ch. M. Oxon., F.R.C.P. Lond., F.R.C.S. Eng., D.P.H., County Medical Officer for Herts.: The Edward Jenner Lecture on the Declining Birth-Rate. Delivered at St. George's Hospital Medical School (University of London).—*Lancet*, 22nd April, 1911.

Arthur F. Hertz, M.A., M.D. Oxon., F.R.C.P. Lond., Assistant Physician and Physician-in-Charge of the Department for Nervous Diseases, Guy's Hospital: The Goulstonian Lectures on the Sensibility of the Alimentary Canal in Health and Disease. Delivered at the Royal College of Physicians of London on March 14th, 16th and 21st, 1911. Lecture I.—*Lancet*, 22nd April, 1911.

Edward P. Joynt, M.B., B.S. Durh., late House-Physician, Guy's Hospital: Erythema Nodosum following Measles.—*Lancet*, 15th April, 1911.

W. Arbuthnot Lane, M.S., F.R.C.S., Surgeon to Guy's Hospital and Senior Surgeon to the Hospital for Sick Children, Great Ormond Street, W.C.: A Clinical Lecture on the Kinks which develop in our Drainage System in Chronic Intestinal Stasis. Delivered at Guy's Hospital, March 22nd.—*British Medical Journal*, 22nd April, 1911.

Sport.

Cricket.

Date.		FIXTURES—First Eleven.	
May	3	Trial Game.	
	6	Beckenham	Away.
	10	H.A.C.	Away.
	13	Sevenoaks	Away.
	17	Hampstead	Home.
	20	Reigate Priory	Away.
	21	Thespids...	Away.
	24	Granville	Home.
	27	Bexley Asylum	Away.
	31	The Past	Home.
June	2	Thespids...	Home.
	3	The Sports.	
	5	Crofton Park	Home.
	7	Stoics	Home.
	10	Tunbridge Wells	Away.
	14	Darenth Asylum	Away.
	17	Granville	Away.
	21	Hampstead	Away.
	24	Cane Hill Asylum	Away.
	26	Surrey Club and Ground	Away.
	28	Forest Hill	Home.
July	1	Wanderers	Home.
	3	Forest Hill	Away.
	5	Old Whitgiftians	Home.
	8	Croydon Mental Hospital	Away.
	22	Bromley	Away.
	29	London County & Westminster Bank	Away.

Date.		Second Eleven.	
May	3	Trial Game.	
	6	Old Whitgiftians...	Home.
	13	Architectural Association	Away.
	20	Granville "A."	Home.
	27	Hampstead Nomads	Home.
	31	R.N.C., Greenwich	Away.
June	10	Old Olanians	Home.
	17	Architecturial Association ...	Home.
	24	Dulwich	Home.
	28	Granville "A."	Away.

		Third Eleven.	
May	3	Trial Game.	
	17	Brentwood School	Away.
	24	London Hospital...	Away.
	27	Long Grove Asylum, Epsom ...	Away.
	31	Sevenoaks School	Away.
June	5	Camberwell House	Away.
	7	Brentwood School	Away.
	14	London Hospital...	Home.
	21	Sevenoaks School...	Home.
	24	Camberwell House	Away.

Appointments.

Naval and Military.

Fleet-Surgeon W. Bett, R.N., Surgeon to the Royal Naval College, Dartmouth, has been made a Member of the Fourth Class, Royal Victorian Order.

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Passim.

THE letter from Mr. Clement Lucas in our last issue has been the only formal protest in these columns against the "ragging" which was indulged in on the day of the Cup-final at Richmond. Our silence on the subject, however, has not necessarily implied our condonation of those riotous scenes. Rather, it was felt that silence was the most fitting comment; and, in any case, the date of the Cup-final is now so long past that it scarcely seems worth while to recall it now. We notice, nevertheless, that our contemporary the *London Hospital Gazette* has in its last two issues been deluged with correspondence on the subject. The correspondence opens with a letter couched in language as intemperate as the conduct which it deplores, and naturally this particular letter called forth many indignant replies. More weighty condemnation, however, came from Mr. Sidney Holland, the Chairman of the London Hospital, and we must all agree with his remark that "we do not want to go back to the days when everyone who got 'into trouble' said as an excuse, or as a palliation of his noisy conduct, 'I am a medical student'."

SOME time ago we suggested that a Staff v. Students Golf Match should be held. We are pleased, therefore, to hear that a similar, but better, suggestion, has been adopted. A six-a-side competition has been arranged between teams representing the Medical and Surgical sides respectively. Each side will consist of members of the Visiting Staff and Residents. The match will be held at Northwood on Wednesday, May 24th; singles to be played in the afternoon, and foursomes in the evening. It seems possible that this friendly rivalry between one department and another may find application in other quarters and lead, say, to a Boxing Match between the Genito-urinary and Bacteriological Departments. Other no less exciting conflicts suggest themselves.

The Residents' "Smoker," of which a preliminary announcement appeared in our last issue, has been fixed for Wednesday next, May 17th. It will be held in the College Dining Hall, at 8.30 p.m., and Mr. F. J. Steward will take the chair. Among those who have kindly promised to perform are Dr. Byrd Page, Mr. Charles Capper and Mr. Stanley Cock—all well-known and popular with Guy's audiences, and these names alone ensure a rattling good concert. Tickets, at the moderate price of one shilling, should be obtained at once from Mr. J. G. Saner, or Mr. H. Gardiner.

A COURSE of six lectures on "Conduct and its Disorders," is being given at University College

by Dr. Charles Mercier, on Fridays at 5 p.m. The first lecture was held yesterday. The Secretary of the College asks us to explain that the note as to "qualifications" which appeared on the bills announcing the course, is not intended to exclude medical students. Tickets will be issued free to the latter on application to the Secretary.

The Musical Society's next Concert is announced for Friday, June 2nd, in the Physiological Theatre. Mr. Clive Carey will conduct, and the Concert will consist of Choral items, which we shall announce later. Tickets, half-a-crown each, may be obtained from Mr. H. Gardiner, Guy's College.

A Conversazione will be held in the rooms of the Medical Society of London, at 11, Chandos Street, Cavendish Square, on Monday, May 15th. The President, Mr. Charters Symonds, will hold a Reception at 8.30 p.m., and at 9 an Oration on 'Post-operative Lung Complications," will be delivered by Dr. William Pasteur.

The death of Surgeon-General William Burns Beatson, of the Indian Medical Service, in his 87th year, has been announced. He died on April 26th at his residence in Eastbourne, where he has lived in retirement for many years. He entered Guy's Hospital as a student nearly seventy years ago, and qualified in 1846. After several voyages to the East as medical officer on a passenger ship, his long association with India began as Surgeon in charge of troops in the East India Company's army. He held several appointments at Nagpur, including those of Superintendent of the Lunatic Asylum, Medical Officer to the Central Gaol, and Principal of the School of Medicine. He was the author of a work on "The Indian Medical Service, Past and Present," in which he showed the great part that the medical service has taken in improving and extending the results of British rule in India. The late Dr. Beatson became a Fellow of the Royal College of Surgeons in 1867, and a member of the Royal College of Physicians in 1884.

Appointments.

Medical School Appointments.

The following appointments have been made by the Treasurer upon the recommendation of the Medical Council :—

Clinical Assistants in Medical Wards.—Messrs. V. Glendining, A. H. Birks (Dr. Hale White); J. B. Hance, B. T. Verver (Dr. Pitt); T. E. Roberts, R. Heaton (Sir Cooper Perry); W. M. Langdon, G. B. H. Jones (Dr. Shaw).

Clinical Assistants in Surgical Wards.—Messrs. B. R. Parmiter (Mr. Symonds); F. C. Newman (Mr. Lane); W. E. Fox (Mr. Dunn); G. W M. Andrew (Sir Alfred Fripp).

Ophthalmic Dressers.—Messrs. E. G. Schlesinger, G. Marshall (Mr. Eason); G. Covell, G. A. Blake (Mr. Ormond) (May 1st); A. S. Seabrooke, A. C. Jepson (Mr. Eason); F. G. Lloyd, B. Blackwood (Mr. Ormond) (June 16th).

Surgeons' Dressers.—Messrs. O. R. L. Wilson, H. J. Hoby, L. B. Stringer, S. Wickenden, A. Tilbury (Mr. Symonds); M. Scott, R. D. Passey, T. I. Bennett, J. L. D. Lewis, L. M. Menagé (Mr. Lane); A. L. Shearwood, H. Webb, K. B. Clarke, G. W. King, W. Matthews (Mr. Dunn); W. K. Fry, W. C. Whitworth, L. P. Harris, A. Samuel, E. C. Cline (Sir Alfred Fripp).

Externs.—H. G. Crawford, J. L. M. Symns, W. E. S. Digby, S. S. Crosse (May); C. Warner, C. Worster Drought, F. Tooth, V. A. Luna (June); C. Aldis, F. Cook, T. P. Cole, D. A. Davies, G. W. B. Garrett (July).

Student Demonstrator of Anatomy.—Mr. C. H. Medlock.

Student Demonstrators of Histology.—Messrs. A. Wills and F. V. Bevan Brown.

Pathological Assistants to the Surgical Registrar—Messrs. H. L. Hopkins, A. J. McNair, E. R. Hart.

A correspondent writes:—"A very pretty wedding took place at Lashburn, Sask., Canada, on April 17th, when Mr. Christopher Lucas, of Bresaylor, Sask., who hails from Hitchin, Herts., was united to Miss Cecilia Archbold ('Archie'), the large church being crowded. The bridegroom was formerly a patient in Bright Ward, at the time when the bride was a probationer. The bride's bouquet was afterwards presented by her to the local hospital. Miss Archbold, who was one of our most distinguished surgical nurses, had made herself very popular during her short stay at Lashburn Rectory, and received many tokens of appreciation. The ceremony was performed by the Rector of Lashburn, Rev. W. H. English, and the only regrets entertained by the happy pair were that the bridegroom's parents could not be present and that the bride could not be given away by her old friend, Rev. John Napleton, Chaplain of the French Hospital, a contemporary patient of Mr. Lucas in Bright Ward, Letters since received assure us that the young people are 'supremely happy.'"

A Case of Mirror-Writing.

M.W., a girl, æt. 13, was sent to Dr. Hertz's Nervous Out-patients on February 22nd, on account of partial paralysis of the legs, associated with swelling of the limbs and pelvic pain on standing.

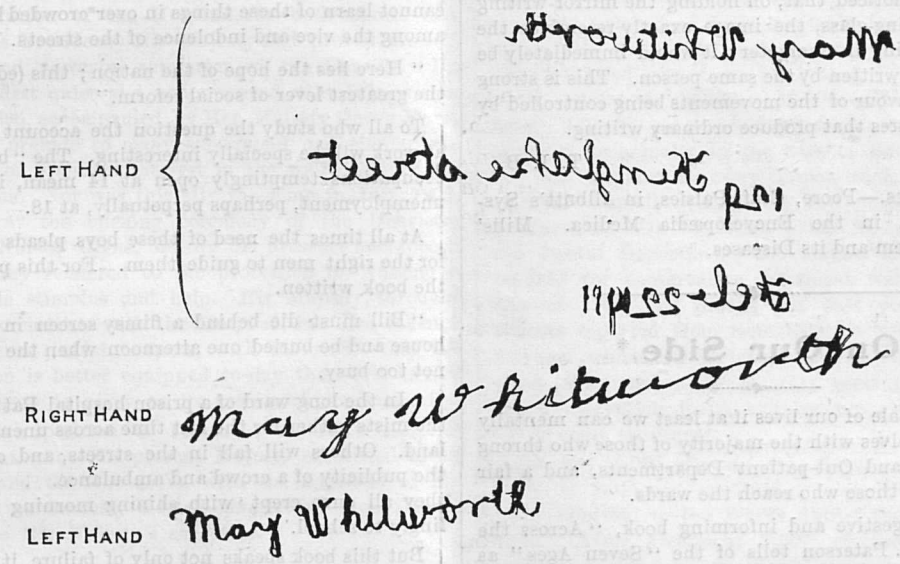
There was a history of difficult labour, though the child was born at full-term. At the age of three months she had fits, and has always been partially paralysed since then; she could not sit up until she was six years' old. Two years ago she was taken to the Evelina Hospital and there treated on account of the swelling of the legs. She has been able to walk a little, but latterly this has become more difficult, and she complains of pain in the pelvis on standing unsupported.

On examination no abnormality was found in the eyes or in the facial or ocular muscles. The arm muscles were well-developed, but there was some slight loss of power in them, rather more marked on the right side; the arm-jerks were easily obtained, but could not be said definitely to be exaggerated. The leg muscles were weak, but not wasted; the knee-jerks were exaggerated on both sides and the tendo-achillis jerks were easily obtained. The plantor reflex was extensor on both sides, but ankle clonus was not obtained. Sensation was unaffected. There was complete control over both rectum and bladder. There was no sign of any abnormality about the spine. The patient could not walk alone, but with a little assistance she walked with a typically spastic gait.

The patient is attending one of the L.C.C. special schools, and appears to be a perfectly intelligent child; the mother stated that she could not write easily on account of tremor in the hands; on testing the writing it was found that the patient, when left to herself, wrote with the left hand, and wrote a mirror-image of ordinary writing; she could write with the right hand, but not nearly so quickly or well; she could also, when told to do so, write with the left hand in the ordinary way, though with much more difficulty.

Dr. Hertz, commenting on the case, said that it must be looked on as a double hemiplegia rather than as a paraplegia, as the arms were definitely affected, though not markedly so. The cerebral diplegia was probably caused by symmetrical foci of inflammation, or possibly of hæmorrhage, occurring when the child had the fits when she was three months old.

As to mirror-writing it is found that a certain percentage of normal persons when told to write with the left hand produce mirror-writing; but in persons suffering from cerebral disease, and especially in hemiplegics, the percentage is much higher; indeed Elder suggests that it may be a sign of considerable diagnostic value, inasmuch as he has found that those patients exhibiting it are always the subjects of a non-cortical lesion, that is to say, a lesion in the internal capsule or elsewhere in the pyramidal fibres below the cortex.



It is recorded that Leonardo da Vinci left a manuscript written in this way, and it seems probable that this is accounted for by the fact that he was paralysed in his right hand during his last years.

The theoretical explanation of mirror-writing is that movements which produce this writing with the left hand are primarily controlled by the cells of the left cerebral cortex. The motor impulses for mirror-writing start in these cells, which are usually used for producing movements of the right hand; these cells are probably connected with the cells of the right cortex, which usually control or co-ordinate movements of the left hand.

If mirror-writing be carefully examined it will be seen that not all the movements producing the writing are reversed, the movements in the vertical axis are the same, and it is only those in the horizontal axis that are reversed; the movements which produce the right to left writing with the left hand are the same as those which produce the left to right writing with the right hand, the same muscles are called into action in each case in the homologous muscles.

There is evidence that movements of the hands are partially represented in the cortex of both sides, and it seems probable that if the left side of the brain has been educated to control the movements of writing, this side will considerably influence the right cortical cells when the act of writing is afterwards performed by the left hand. The influence of the left cerebral cortex on the right will be felt to an even more marked degree when the pyramidal fibres are in some way cut off from the anterior cornual cells.

It will be noticed that, on holding the mirror-writing up to a looking-glass, the image exactly resembles the ordinary writing in character; it would immediately be recognised as written by the same person. This is strong evidence in favour of the movements being controlled by the same centres that produce ordinary writing.

T. I. B.

REFERENCES.—Poore, Craft Palsies, in Allbutt's System. Elder, in the Encyclopædia Medica. Mills' Nervous System and its Diseases.

On Our Side.*

HERE is the tale of our lives if at least we can mentally identify ourselves with the majority of those who throng our Surgery and Out-patient Departments, and a fair proportion of those who reach the wards.

In his suggestive and informing book, "Across the Bridges," Mr. Paterson tells of the "Seven Ages" as they pass by the South London river-side. How well we know that endless procession. They are not the acutely, but rather the chronically ill. Dwellers in mean streets, with their characteristic smells, perpetually oppressed by dirt and powerless to combat it. Housed in modern tenements or in old-fashioned terraces, both alike devoid of opportunities for decent cleanliness. From babies in their mother's arms, fed on a never varied diet of stewed tea, fish, and cheap jam. School children playing in the streets until 11 o'clock at night and roused at 6 a.m. if the father goes to work. Victims of tubercular disease, perhaps after the most generous provision of Convalescent Homes, returning to share two small rooms with the rest of the family. As the author says, the river of life runs too quickly for such as these and they are engulfed in its "shallows and miseries," in all that is expressed in the sordid, enervating, wasteful life of poverty.

Among these people, all but two millions in number, Mr. Paterson has lived and worked. To every side of the problem he has directed his thoughts and sympathies. "Streets and Homes," "Characters and Religion," "Marriage," "Working Men," are a few of the chapters all full of interest. He who works may read.

A University graduate, Mr. Paterson taught for some time in an Elementary Council School, shared the life of the lads in summer camps and evening clubs. It is natural, therefore, that work for and with working boys takes up a large share of the book.

The writer speaks with experience when he makes much of the years of school—eleven in a life time. They bring happiness, order, and interest, to those who cannot learn of these things in over crowded homes, and among the vice and indolence of the streets.

"Here lies the hope of the nation; this (education) is the greatest lever of social reform."

To all who study the question the account of the boy at work will be specially interesting. The "blind-alley" occupations temptingly open at 14 mean, if followed, unemployment, perhaps perpetually, at 18.

At all times the need of these boys pleads eloquently for the right men to guide them. For this purpose was the book written.

"Bill must die behind a flimsy screen in the workhouse and be buried one afternoon when the chaplain is not too busy.

"In the long ward of a prison hospital Pat will watch the mists gather for the last time across unending moorland. Others will fall in the streets, and earn at last the publicity of a crowd and ambulance. . . . Yet they all once crept 'with shining morning face unwillingly to school.'"

But this book speaks not only of failure, it has many suggestions of reform. "The first great struggle is for men to realize that across the bridges there is a great need, which is a reproach to their common sense because it is a great waste of strength and goodness, and to their manliness because it is unutterably sad."

Only by service can men learn of each others' needs. Mr. Paterson makes strong appeal for this understanding. From our side of the river he looks across the water to where health and education and opportunity are a birthright. He would also see and lay claim to that true spirit of Charity, the service of Humanity, that walks not only "Gennesaret but Thames." S.

* "Across the Bridges," or Life by the South London River-side, by Alexander Paterson. Edward Arnold, London, 1911.

A CORRECTION.—In the letter headed "Midwifery Tips," in our last issue, "Tib. Opii gr. v." should read: "Tab. Opii gr. i."

The Annual Report.

Lord Goschen's first annual report as Treasurer of the Hospital has just been issued to donors and subscribers. It records a busy and successful year marked by many changes and improvements, and, inevitably, some losses, for it opens with a reference to the late patron of the hospital, H.M. King Edward VII. :—

The overshadowing event in the record of the hospital for the past year is the death of His Majesty King Edward VII. The association of His late Majesty with the Foundation of Thomas Guy had been of peculiar strength, and the Institution by his death has sustained the loss of a true friend.

The Governors with much gratitude report the gracious consent of His Majesty King George V. to become Patron of the Hospital, for both before and during his Presidency His Majesty had proved himself a kind and powerful supporter of the Charity. He paid his first quiet and unannounced visit to Guy's in March, 1896, accompanied by Her Majesty Queen Mary. It was a prelude to many subsequent and similar expressions of practical interest in the well-being of the Foundation. Nor was this all; the King in July, 1902, presided at the opening ceremony of the Henriette Raphael Nurses' Home, and by his presence and speech on that day rendered to the profession of Nursing a memorable stimulus and help. His Majesty, throughout his connection with the Hospital, has also taken a keen interest in its finances, with the result that the Institution is better equipped to-day than ever before in its history to carry on its vast work for humanity.

The high position of President of Guy's Hospital fell vacant when His present Majesty succeeded to the Throne, and the Governors, with the approval of His Majesty, unanimously elected Mr. Henry Cosmo Orme Bonsor as His Majesty's successor.

GOVERNORS AND STAFF.

On the death of His Majesty King Edward VII., Patron of the Hospital, an extraordinary General Court of Governors was held, and a special vote of condolence passed and addressed to His present Majesty.

Subsequently the intimation was received "that the King on his Accession does cease to be President of Guy's Hospital," followed by the gracious message that he was pleased to become its Patron.

The changes among the Governors and on the Medical Staff are then recorded. The latter are probably known to our readers, and need not be detailed here :—

The Treasurer, Mr. Henry Cosmo Orme Bonsor, was unanimously elected as the new President, and the Right Hon. Viscount Goschen, Treasurer in his stead.

The Governors have to deplore the deaths during the past year of three eminent colleagues:—Mr. H. Seton-Karr, elected in 1882; Mr. Hugh Colin Smith, elected in 1884; and H.S.H. Prince Francis of Teck, elected in 1906.

The Right Hon. Lord Ashcombe, a Governor since 1874, resigned, and Mr. Vincent C. Vickers and Mr. Francis P. Whitbread were elected to the Corporation.

The next section deals with the work of the hospital as shown by the number of

PATIENTS.

The usual Statistical Tables regarding In-Patients and Out-Patients, their numbers, categories, cost, and other details, in the form required by King Edward's Hospital Fund for London, are published in the Report. Comparison with the figures for 1909 shows that the number of beds available for use, 617, remained the same; but that the number of In-patients accommodated rose from 8,933 to 9,076, a fresh record; while the number of Out-patients increased from 130,499 to 138,785. This latter increase occurred principally in the case of Surgery patients, but was common to every Department, with one exception, a small decrease in the number of Dental Extractions. On the other hand, in connection with the Dental Department, the number of Patients attending for conservative treatment was 1,087 in excess of 1909, and during the past year the Dental Officers reported from time to time upon this marked increase which, by October last, had reached a stage when the number of patients seeking attention in the Conservation Room had become almost too large for prompt treatment.

Of the 9,076 In-patients above mentioned, 488 were in residence on January 1st, 1910, and 8,588 were admitted to the Wards during the course of the year. After treatment 7,302 of these In-patients were discharged as cured or relieved, 504 as unrelieved, and there were 764 deaths, this being a higher rate of mortality. Operations under anæsthetics numbered 5,632 as against 5,219 in 1909.

The cases were divided into 2,960 of a Medical, and 6,116 of a Surgical nature; a decrease under the former, and an increase under the latter, head as compared with the previous year. The number of beds in daily occupation increased from 525·6 to 533·5; the average mean residence of patients in the Medical Wards increasing, as compared with 1909, from 33·4 days to 35·2 days, and in the Surgical Wards decreasing from 17·5 days to 16·9 days. Accident cases admitted to the Wards, of whom 86 died in Hospital, numbered 1,164. This total is an increase of exactly 100 cases on the abnormally low figures for 1909, but still considerably below the totals of recent

years. In consequence of the smaller number of Accident Cases presenting themselves, the Governors have had under consideration the allocation of certain Beds in the Male Accident Wards, Astley Cooper and Cornelius, for other classes of sufferers.

CONVALESCENT HOMES.

After giving a list, which has already been published in the GAZETTE, of the number of patients sent to various convalescent homes, the report speaks in appreciative terms of the work of these institutions:—

The good auxiliary work of Convalescent Homes, for which the Governors tender their renewed appreciation, received welcome additions in the course of 1910. The Convalescent Homes Committee of King Edward's Hospital Fund for London placed at the disposal of the Hospital three beds at Consumptive Sanatoria, two for male patients at the Devon and Cornwall Sanatorium, Didworthy, South Brent, and one for a female patient at Kelling Sanatorium, Holt, Norfolk. These beds are intended only for the reception of patients suffering from Pulmonary Tuberculosis at so early a stage as "to afford reasonable expectation of permanent improvement or cure." Furthermore; upon the opening of the Schiff Home of Recovery at Cobham, Surrey, in November last, eight beds, for men, women, and occasionally children, were allotted to Guy's. It is useful to add that the purpose of this Home and the intention of its generous Founder is to hasten the return to health and capacity for work of those who have undergone operations and are likely to recover quickly, by receiving these patients within a few days after operation, and simultaneously relieving the pressure on Hospital beds in London. With this end in view a Motor Ambulance capable of taking recumbent patients, a well-qualified Resident Surgical Officer, and a full staff of Nurses have been provided.

OUT-PATIENT VISITORS.

The next paragraph contains some account of that very important department of the hospital, the Out-patient Visitors' Office:—

The Reports of the Out-patient Visitors show that of the patients presenting themselves only 1·91 per cent. were found to be ineligible to receive treatment; but it is well to restate that the duty of these lady Officers is not limited to checking abuse of the Charity. It extends to the more positive work of becoming acquainted with the real circumstances of many of these poor people; visiting them in their own homes; and, where desirable and possible, rendering extraneous aid, principally in the form of recommendations to other suitable Philanthropic Agencies and Convalescent Homes, and the provision of Surgical Appliances, Dentures, and nourishment during sickness. But this charitable endeavour is not stereotyped in character, and included during last year, such items as the finding of work in the country for a patient, and the apprenticeship of another to a suitable trade. It should be understood that the share of the Hospital in the cost of this special work comes from the Samaritan Fund, a Fund which, in virtue of its potential opportunity of rendering urgent supplemental help to the sick poor in our midst, is deserving of the most liberal support.

We then come to the great matter of

FINANCE.

It is satisfactory to state at the outset that, thanks to the assistance of legacies, the Income and Expenditure Account again shows a balance to the good. The total income, Ordinary and Extraordinary (excluding the Re-endowment and Building Funds) amounted to £76,125 7s. 7d.; total Ordinary Expenditure to £68,772 11s. 9d., and as, under the Uniform System of Accounts, Extraordinary Expenditure is not shown here, the excess balance of income for the year amounted to £7,352 15s. 10d., which sum is transferred to the Balance Sheet. Out of this surplus, however, the Governors were enabled to discharge the over-expended capital balance of £3,643 17s. 0d. on account of works specified on 1910 Building and Renovation Fund, subsequently referred to, and a sum of £106 11s. 0d. for completion of a New Dynamo, leaving the balance of £3,602 7s. 10d. to the credit of capital.

The total income above referred to was made up as follows:—From net Rents, as per Revenue Account, £28,746 10s. 0d. net Dividends, Rents and Interest arising from the investments of the Re-endowment Fund, £9,869 15s. 4d.; King Edward's Hospital Fund for London, £6,000; Donations, £2,930 2s. 4d.; Annual Subscriptions, £3,318 19s. 3d.; Hospital Sunday Fund, £1,588 18s. 4d.; Hospital Saturday Fund, £348; Legacies for general purposes, £15,831 13s. 6d.; Patients' Payments, £5,328 2s. 10d.; Nurses' and Probationers' Fees, £1,188 15s. 8d.; Return of Income Tax, £720 4s. 8d.; and Sundry Receipts, £254 5s. 8d.

Compared with the corresponding figures for 1909, the total Ordinary Income of £60,293 14s. 1d. shows a decrease of £9,447 5s. 1d., principally due to a specially large sum received in the previous year under the head of donations. Extraordinary Income, which consisted entirely of legacies, amounted to £15,831 13s. 6d., compared with £11,264 5s. 3d., and this source of income alone enabled the Hospital to again show a surplus balance at the close of the year.

The total Ordinary Expenditure for the year amounted to £68,772 11s. 9d., compared with £66,943 4s. 11d. in 1909, the increase being mainly due to higher cost for Maintenance.

The Building and Renovation Fund, 1910, covers, with the exception of one small item of £106 11s., the whole of the Extraordinary Expenditure for the year which amounted to £7,451 18s. Towards the £60,000 required to complete this Fund, formally opened by a statement of the Governors in the previous Report, the following contributions were received: King Edward's Hospital Fund lor London, £1,500; "J. M.," £1,000; R. Nivison, Esq., £1,000; Mrs. Raphael (in memory of the late R. H. Raphael, Esq.), £200; and Miss Taylor, £1 10s.

The Re-endowment Fund, which at December 31st, 1909, amounted to £304,736 7s. 6d., received a total addition during the year of £12,761 12s. 0d., by way of legacies and donations given specifically to this Fund, including £4,000 on account of a legacy of £6,000 from the late Dr. Peter Hubert Desvignes, a former student at this Hospital, to endow Beds and Cots in memory of his Sister Caroline Frances Desvignes (Dr. Desvignes further bequeathed for a like purpose five-sixths of the residue of his Estate, and the remaining one-sixth share "to the Bacteriological Laboratory for the promotion of research work only"); £2,000 on account of the residue of the Estate of Miss L. A. Williams; £1,680 13s. 11d. on account of a moiety in the Residuary Estate of the late Dr. William Murphy; £1,000 from the late Alfred George Beebe, Esq., to endow a bed; and £1,000 from the late Miss Anne Clementina Hunt to endow the "Charlotte and Anne Hunt Bed."

There was also received a gift of £2,000 from an "Anonymous" Donor ("In Memoriam"); a further instalment of £100 from Henry Lafone, Esq.; and, among other contributions, an additional sum of £35 5s. 8d. from Mrs. Henderson towards the endowment of a Cot, bringing the total amount received through her for this purpose up to date to £348 4s. 10d. The total of the Fund at the end of the year, £317,444 19s. 6d., is represented by Investments at cost. The Governors are much gratified at the continued, if measured, growth of that permanent financial strength which the Re-endowment Fund was designed to supply, and particularly they desire to take this occasion of expressing their deep sensibility of the generous remembrance in which the Fund has been held by old Guy's men.

ADMINISTRATION.

A short account of the considerable changes and additions in the various departments of the Hospital which have taken place during the year follows :—

During the past year important additions to the resources of the Hospital in the treatment of patients have been made by the creation of two new Out-patient Departments, one for Nervous Diseases and another for Genito-Urinary Cases. Both these Departments are at work, in charge of a Physician and Surgeon respectively.

Four male beds in Barnabas Ward were allocated for the reception of Orthopædic Cases, and five beds for Genito-Urinary Cases in Astley Cooper Ward.

In the course of the year the extension of The Henriette Raphael Nurses' Home to meet the increase of Staff, the building of new residences within the precincts for certain Officers and Servants of the Hospital required to be at all times available for emergencies, and the provision of an additional Operating Suite, works mentioned in the last Report as being matters of urgency, have been proceeded with, and approach completion. The first of these works was placed in the hands of Contractors, and the remainder entrusted to the Works' Department of the Hospital.

The new Operating Suite above referred to will occupy the space on the top floor of Guy's House formerly devoted to the Light and Electrical Department, which has now been transferred to the rooms rendered vacant by the removal in 1909 of the Front Surgery to its new quarters in Maze Pond, a further result of this change being the conversion of the old "Dressers' Rooms" into necessary quarters for Nurses.

Lydia and Charity Wards underwent repainting and renovation, and the Front Quadrangle has been paved with wood, a very desirable improvement.

In the Engineering Department further work was carried out in the running of Electrical, Steam, Fire, and Hot Water Mains, sufficient to cope with the increased requirements; but, as showing how efficiency promotes economy, it is to be noted that a further saving on that mentioned in the previous Report has been effected both in the case of the cost of production of electricity and the consumption of coal. The 300,660 units of electricity supplied from the Central Station in 1910 was still lower than in 1909, and was produced at the rate of ·97883d. per unit, compared with 1·03481d. per unit in the previous year, while in the case of coal the consumption was further reduced to the extent of 400 tons.

In the Laundry 1,254,431 pieces were washed for patients, nurses, and the general requirements of the Hospital, or an average of 24,057 pieces per week.

NURSING STAFF.

One hundred and five pupils, as compared with eighty-nine in the preceding year, were received into the Training School for Probationers, and of these, 99 having passed their preliminary examination began work in the Wards, together with 18 Probationers who had undergone training before entering. In addition, 2 pupils joined for a course of training in administrative work, and 6 pupils for short periods of training in special work. The Nursing Staff at the

close of the year was constituted as follows:—The Matron, 1 Assistant Matron, 23 Day Sisters, 2 Night Sisters, 2 Home Sisters, 2 Pupil Sisters, 1 Sister-in-charge of the Ward-maids, 1 Sister-in-charge of the Linen Stores, 63 Staff and Head Nurses, 181 Probationers and Paying Probationers. In addition were 2 Housekeepers, 1 Laundry Superintendent, 1 Hostel Mistress, 97 Ward-maids and Servants, 8 Dressmakers, and 32 Laundry and Hostel Maids, a total of 418 persons, being an increase of 14 in the Staff of the Matron's Department.

The compulsory examinations for Probationers gave the following satisfactory results:—

Medical Examination		92	passed	4	failed.
Nursing	„	89	„	0	„
Surgical	„	74	„	7	„
Pharmacy	„	58	„	9	„

Two Sisters and 18 Nurses passed the examination of the Incorporated Society of Trained Masseuses, and 32 Nurses, after training in the Extern Maternity Charity of the Hospital, obtained the Diploma of the Central Midwives' Board.

MEDICAL SCHOOL.

Recent and impending changes in the Medical School are the subject of the next section :—

The past year has witnessed the commencement of great alterations for the enlargement of the Medical and Dental Schools. Owing to the increase in the entry of dental pupils and students, it has been found necessary to enlarge the accommodation of the Dental School, and it has accordingly been decided to occupy the space now allocated to the Chemical and Physical Laboratories. New Laboratories for instruction and research in these subjects have therefore been built above the existing Medical School Buildings, and are now open for the use of students. The laboratories thus vacated will be reconstructed for the purposes of the Dental School, and will be available for the use of students by the 1st of October next.

The School has also to record with the deepest gratitude an anonymous donation of £8,000 for the building and equipment of a new Pathological Department for teaching and research. With the funds thus generously placed at its disposal the School has acquired a five-storied warehouse adjoining the post-mortem room, and plans for its conversion into a Pathological Department are under consideration. It is hoped that this Department will also be available by the commencement of the next winter session.

THE FUTURE.

The report closes, as usual, with some weighty words as to the future :—

Towards the £60,000 appealed for in respect of the 1910 Building and Renovation Fund, £3,701 10s., as already stated, was received in the course of last year. The Governors express their earnest hope that this Fund may grow with the need, so that any cessation in the necessary works in hand and contemplated may be avoided. Their cost is an expense which must in the ordinary course of things be met by special provision, for, while in the last few years the income of the Hospital has somewhat exceeded ordinary expenditure, this has been wholly due to abnormal aid in the form of legacies, and a lean year in this respect would probably result in a deficit on General Account. It will be remembered that the re-building of Clinical House constitutes a principal item in the scheme intended to be covered by the Fund; and this, apart from its general desirability, has, by reason of the condition of the building, now become of pressing necessity. As to whether the restoration should take place on the present site, or the beds be provided by adding a story to Hunt's House, is a matter at present engaging the serious consideration of the Governors; but, whatever course be adopted, it is proposed to include in this particular undertaking the establishment of a Ward to give fifty beds for children, and, *inter alia,* Wards for Specialisms, in accordance with the weighty Report of the Committee on these subjects, to which reference has previously been made.

The Governors have firm hope that the foregoing plain statement of facts will suffice once more to recommend to generous support the cause and immediate necessities of GUY'S HOSPITAL.

Change of Address.

H. M. Berncastle, from 7, Woodvale, Forest Hill, to Croydon Mental Hospital, Warlingham, Surrey.

Staff-Surgeon H. R. H. Denny, R.N., from West London Hospital to H.M.S. *Vivid*, Devonport.

Surgeon A. W. Iredell, R.N., from H.M.S. *Bulwark* to Royal Naval Barracks, Portsmouth.

Surgeon D. A. Mitchell, R.N., from Royal Naval Barracks, Portsmouth, to H.M.S. *Terrible*, Portsmouth.

F. Morres, M.R.C.S., L.R.C.P., from St. George's Infirmary, Fulham Road, S.W., to London County Asylum, Cane Hill, Coulsdon, Surrey.

H. R. Mullins, from Guy's Hospital to Box 222 Simmer and Jack's Hospital, Germiston, Transvaal.

C. D. Edwards, B.A., M.D., B.C., from Fayre Oakes, Hereford, to 15, Oxford Road, Huntingdon Road, Cambridge.

D. Lloyd Smith, M.B., to "Highbury," Montpelier Park, Llandrindod Wells, Centra Wales (Summer

Neurological Out-Patients.

A. M., labourer, æt. 30, came up for "weakness in his legs." It was noticed that his speech was slurred and drawling, and also that during the time he was being examined his attention wandered continually. When asked a question he would give an answer, and then continue talking at some length on any side issue which occurred to him. He informed us that he attended a hospital when 16 years of age to be treated for syphilis. His attendance there had been regular once a fortnight for 2½ years, and seeing the nature of the case, this fact is important. He is a married man, and has one child. His wife has had no miscarriages.

He states that three months ago he woke up two or three times at night with precipitate action of the bowels. There has been no urinary trouble. For the last five weeks he has found that his legs soon get tired. He has had severe headaches, and has been sleeping badly. He has been doing his ordinary work up to last week.

On examination. The pupils were found irregular in shape. Both reacted to light and accommodation, but the right one was very sluggish to light. The tongue was slightly tremulous, and the hands showed a fine tremor when held out in front. The knee-jerks and tendo-achilles jerks were present; plantar reflex unobtained owing to excessive irritability on stimulating the sole of the foot. There were no other abnormal physical signs.

Although general paralysis of the insane was at once suggested, there was nothing about the patient—except that he was rather talkative—to support the view that there was much mental change, and it was not until we had talked to his brother that the real interest in the case came out.

We there learnt that he had been "very peculiar" for the last week, and also rather forgetful for the week preceding this. He has been very irritable and soon got into tempers, so that his relatives had considered it advisable to keep his carpenter's tools hidden. He possesses three revolvers, and has said openly that he thinks his wife is going off her head, and that he means to buy ammunition "to do something further for her."

Three days ago he went to the Crystal Palace and has since been devoured by the idea of improving his house to look like the new buildings which are springing up there. He wants to pull the paper off the walls and cover both walls and ceilings with pictures. His wife stated he was very destructive. Amongst other things, he had taken his bicycle to pieces and left the parts lying about. He has also put on two suits of clothes at one time. Finally, he has been very diligent in self-culture this winter, and has attended evening classes on different occasions for "joinery, electricity, picture-framing, first aid, and amateur gardening."

This case was shown by Dr. Hertz at his demonstration, and the interest lies in the degree to which the mental symptoms had advanced while physically the signs were slight. Also, that although the patient had been under regular anti-specific treatment for over two years, he has developed general paralysis of the insane. The initial symptom of trouble with the bowels seemed to be identical with the rectal crises of tabes.

W. J.

Papers by Guy's Men.

Harold Chapple, F.R.C.S. A Consideration of some Cases of Advanced Tubercular Joints Treated by Ileo-Colostomy. With Remarks by Dr. Distaso, Assistant to Professor Metchnikoff.—*Lancet*, 29th April, 1911.

A. F. Hertz, M.D. Oxon., F.R.C.P. Lond., Assistant Physician and Physician in Charge of the Department for Nervous Diseases, Guy's Hospital. The Goulstonian Lectures on the Sensibility of the Alimentary Canal in Health and Disease. Delivered at the Royal College of Physicians of London, on March 14th, 16th and 21st, 1911. Lectures II. and III.—*Lancet*, April 29th and May 6th, 1911.

Lawrie McGavin, F.R.C.S., Surgeon to the Seamen's Hospital. A Drainage Tube for Suprapubic Cystotomy, Liver Abscess, and Abdominal Cysts.—*British Medical Journal*, May 6th, 1911.

L. C. Martin, M.R.C.S. Eng., L.R.C.P. Lond. Two Interesting Cases of Acute Intussusception and Appendicitis.—*Lancet*, April 29th, 1911.

A. E. Maylard, M.B., B.S., Surgeon to the Victoria Infirmary, Glasgow. An Address on the Symptomatic Vagaries of Partial Pyloric Obstruction. Delivered before the Greenock and District Faculty of Medicine.—*Lancet*, May 6th, 1911.

L. A. Parry, M.B., B.S., F.R.C.S., Assistant Surgeon, Royal Alexandra Hospital, Brighton. Some Cases under the Workmen's Compensation Act, and others of Medico-Legal Interest.—*British Medical Journal*, April 29th, 1911.

Lauriston E. Shaw, M.D., F.R.C.P., Physician to Guy's Hospital. Remarks on the Place of the Hospital in a Civilized Community. Made in opening a discussion at a Meeting of the Sunderland Division of the British Medical Association, March 30th, 1911.—*British Medical Journal*, April 29th, 1911.

W. Hale White, M.D., F.R.C.P., Physician to Guy's Hospital. Principles of the Treatment of Colitis. Being remarks made in opening a discussion on the Treatment of Colitis, at the Chelsea Clinical Society.—*Clinical Journal*, May 3rd, 1911.

R. P. Rowlands, M.S., F.R.C.S., Assistant Surgeon and Surgeon in Charge, Orthopædic Department, Guy's Hospital. Operations for Pott's and Dupuytren Fractures.—*Clinical Journal*, May 3rd, 1911

"Traumatic Rheumatoid Arthritis."

The history which accompanies the skiagrams Figs. 1 and 2, is short but instructive.

The patient, a young, middle-aged man, apparently in good health, had his hand seriously injured in a machine, which either removed his finger at the moment, or caused it to be removed later. This constituted the only reason for his first X-ray examination, which was required to determine the extent of the injury.

Six weeks later he came to my department complaining of pain in wrist, metacarpo-phalangeal and phalangeal joints. Externally there was little to suggest an explanation of this pain.

A glance upon the screen, however, shewed the peculiar form of thinning which is characteristic of acute rheumatoid arthritis, and Fig. 2 shews this clearly in all the joints of wrist and hand.

I suppose this should be called "traumatic rheumatoid arthritis," but if this title is intended to convey the idea that the mechanical injury is the cause of the atrophic changes, as opposed to the theory of a septic infection at the time of injury, I would venture to oppose it, and favour the latter suggested solution. Firstly, because a mechanical injury giving rise to such a collection of atrophic changes could only do so by some nerve injury, and, therefore, some trophic change, and trophic bone changes do not give this X-ray appearance. Secondly, because this X-ray appearance has much in common with the appearance of well-marked septic joint changes.

Consequently, I would give my vote as to causation, in this instance, being the inclusion of some bacteria at the time of injury, which have attacked the somewhat devitalized joints.

E. W. H. SHENTON.

Nursing News.

MATRON'S OFFICE.

On April 18th, Miss F. Finnis, who has been acting as Hospital Housekeeper since March, 1910, left the Hospital. Miss Ida Cornwall, Sister Queen, was appointed Hospital Housekeeper; Miss Margaret Hogg, Night Sister, was transferred to Queen Victoria ward, and Miss Margaret Traill is acting as Medical Night Sister *pro tem.*

On April 17th, Nurse Shrewsbury left the Hospital on completion of her three years' training, to take up her duties on the Private Nurses' Staff, and Probationer F. Orchard was appointed to succeed her as Head Nurse in the Eye wards.

On April 22nd, Nurse Harris left the Hospital on completion of her three years' training. Nurse Tilleard was transferred to Dorcas as Head Nurse, and Probationer Grant was appointed Head Nurse in Victoria ward.

On April 24th, Probationer Clarke was appointed Head Nurse in Lydia ward.

On April 28th, Nurse E. Foster left the Hospital on completion of her three years' training, to take up her duties on the Private Nurses' Staff, and Probationer N. Foster was appointed to succeed her as Head Nurse in Charity ward.

On May 6th, Nurse P. Wallis, Head Nurse in Addison ward, left the Hospital on completion of her three years' training.

Appointments.

Military.

Lieutenant L. STUART MCKENZIE SAUNDERS, R.A.M. Corps, is seconded for service with the Egyptian Army.

Civil.

MALLESON, H. C., L.R.C.P., M.R.C.S., L.D.S. Eng., has been appointed Dental Surgeon to Christ's Hospital (Bluecoat School), West Horsham.

PYE-SMITH, R. J., Ch.M., Sheffield, F.R.C.S., is appointed Emeritus Professor of Surgery to the University of Sheffield.

REEVE, H. M., M.B. Lond., B.S., is appointed District Medical Officer, Rochford.

SHENTON, E. W. H., appointed Medical Officer to Electro-Therapy Department, Royal Ophthalmic Hospital (Moorfields).

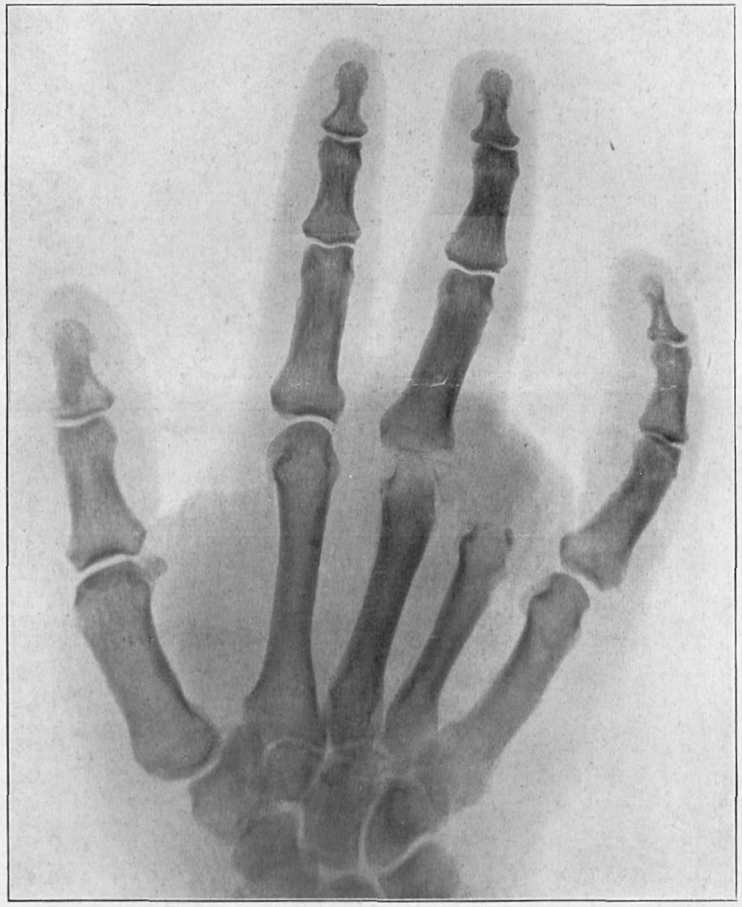


Fig. 1.

Fig. 2.

The Extraction of Cataract.

CLINICAL LECTURE BY Mr. H. L. EASON.

Gentlemen,—Operations for the treatment of cataract are of great antiquity, that known as "couching" having been performed over a thousand years ago, and still remaining popular among native operators in India and the East.

"Couching" consists in passing a needle through the sclerotic behind the lens and then lowering the point of the needle by a sweeping movement, so that it depresses the opaque lens into the vitreous. The immediate result of the operation is admirable, vision being restored at once; in the majority of cases, however, the lens does not remain quiescent at the bottom of the vitreous, but either floats up and obscures the pupil once more or leads to iritis and iridocyclitis, with ultimate destruction of the eye. Still, with all its disadvantages couching remained the only method of removing cataracts till in the middle of the eighteenth century the Frenchman Daviel devised the operation which is still practised in its essentials. Daviel made an incision in the cornea, and instead of depressing the lens into the vitreous, expressed it bodily from the eye, having first lacerated or ruptured the capsule.

Daviel's operation rapidly replaced couching as the operation for cataract, and was widely adopted throughout Europe.

In his book entitled "A Description of the Human Eye," published in 1773, Mr. Joseph Warner, Senior Surgeon to Guy's Hospital, gives a detailed account of the operation as then performed, and as the book is dedicated to his colleagues and the preface addressed to the students of the Hospital, it may not be out of place to quote from it here. Mr. Warner's description of the operation is as follows:—

> "The patient being seated upon a large trunk, or box, the operator places himself exactly opposite upon a seat of convenient height, and in a room where the light is moderate, that the pupil may not be too much contracted.
>
> "This being done, an assistant stands behind the patient, who puts his right hand under the patient's chin; after having covered the right eye, supposing it to be the left which is to be operated upon; the assistant then places the back part of the patient's head on his breast, at the same time directing the face upwards to prevent the sudden discharge of the vitreous humour. He afterwards lifts up the superior eye-lid with two or more fingers, taking care not to press upon the globe of the eye above; the operator, at the same time, depresses the inferior eye-lid, with this precaution, not to press upon the inferior part of the globe of the eye till the incision is made. The patient must look straight forwards, and a little upwards. The operator now fixes his right elbow upon his right knee, after having put his foot firmly on the patient's feet for this purpose. He then suddenly and resolutely introduces the point of his knife through the external part of the cornea opposite to the centre of the pupil, directing it horizontally betwixt the anterior surface of the iris and the interior surface of the cornea, into the fore chamber of the eye, till it penetrates through the cornea on its opposite side; when the inferior part of the cornea must be suddenly divided, by directing the blade of the knife downwards and outwards. The larger and lower the incision is made, the better will the operation be likely to succeed; and if it happens that the wound through the cornea proves too small, it must be enlarged by a pair of sharp scissors, well polished, the blade of which must be curved, so that they may have a convex and concave surface.
>
> "The next process of the operation is to wound the aranea. This ought not to be attempted till a few minutes after the cornea has been incised; as soon as the incision is made through the cornea the eye-lids should be let loose.
>
> "By paying a proper attention to these maxims, the whole of the aqueous humour will be evacuated, the iris will become flacid, and subside upon the cataract; the pupil will be dilated, and the instrument for cutting through the capsula may then be readily directed under the flap of the cornea to the inferior edge of the pupil. From these precautions the pupil will escape violence, to which it is very liable from the passage of the cataract through it, when contracted and small. Immediately after the membrane is wounded, the globe of the eye must be pressed gently upwards, that the cataract may be squeezed through the pupil and inferior part of the cornea, where the incision has been made. The cataract being thus removed, the eye-lids must be covered with a soft double or triple rag, dipped in a cold solution of saccharum saturni or the pulvis é cerussa compositus, prepared in damask rose-water, or spring water; this application must be kept on with a soft linen roller, and renewed two or three times a day. The patient must be laid on his back upon a bed, or couch, and in this situation he must keep himself for some days, that the wound made through the cornea may heal, and the newly secreted aqueous humour may be prevented from escaping out of the eye.

"I look upon the division of the capsula of the cataract to be of great consequence in this operation, since this membrane becomes sometimes so tough and thick as to make a very considerable resistance to the pressure of the globe of the eye; in which case, a great part of the vitreous humour is discharged, unless the capsula of the cataract be wounded.

"It sometimes happens that the cataract immediately follows the division of the cornea without making any external pressure upon the globe, owing probably to the sudden and involuntary contraction of the muscles of the globe, which draw the eye inwards, and forcibly compress it on every side.

"This operation, it must be remembered, cannot be properly and safely performed, but upon such as have the power of keeping their eyes from rolling about; and therefore, I say, must not be undertaken in those subjects who were born with cataracts, as their eyes are always in motion, unless the eyes can be kept fixed and steady with the fingers, or with a properly constructed instrument, so contrived as not to press rudely on the eye.

"The common speculum oculi must not be made use of in this operation, since the compression from that instrument will be found to be so great as to squeeze out a part of the vitreous humour, before the operator can make the wound sufficiently large through the cornea, for the expulsion of the crystaline humour.

"It very often happens that a small part of the vitreous humour is discharged in the most successful operation; but I have seldom known it happen otherwise in such cases, than to be soon restored.

"The inflammation succeeding this operation is generally considerable; but neither that, nor the operation, seems to be very painful. It is frequently several weeks after the operation before the inflammation of the eye is dispersed.

"During this state, the eye should be treated with emollient fomentations and cooling applications, and the patient's body must be kept open; opiates likewise must occasionally be administered.

"If the cornea of the right eye is to be divided, the operator places himself in the same situation as has been already directed, supposing he has a power of using his left hand to advantage; but if he has not a sufficient command of his left hand he must stand behind the patient, and, after having lifted up the superior eye-lid, he must use his right. The assistant at the same time stands before the patient, and holds down the under eye-lid with the precautions already given.

"The proper knife to be made use of in this case is exactly like that which is recommended for the performance of the operation of cutting through the iris; only that it must be about three times as broad, and about twice as thick."

A few years later the oculist, Beer, made the corneal section with a knife invented by himself, with which it was possible to complete the corneal section with one single straightforward movement of the knife, the knife broadening from point to handle, so as to be wedge-shaped.

After the lapse of nearly a century Von Graefe devised the narrow lancet-shaped knife which bears his name and is used at the present. The successive discoveries of chloroform and cocaine have made the operation much easier to perform, and the introduction of antiseptics (for asepsis is impossible in the conjunctival sac) has resulted in an enormous increase in the percentage of successful cases.

The general outlines of the operation for cataract are still, however, those devised by Daviel, and the operation still goes by his name in many parts of the world.

The modern operation for cataract is briefly as follows:—

An incision is made in the cornea with the long lancet-shaped Von Graefe's knife, the point being inserted in the corneo-sclerotic margin at one side, passed across the anterior chamber, and out at the corneo-sclerotic margin on the other. The knife fills up the incision and very little aqueous escapes until it is completed, the knife being got out with slow sawing movements from side to side. The incision in the cornea includes approximately two-fifths of the circumference of the cornea. The corneal incision having been made, there are two alternative methods of procedure which are still matters of debate, namely, whether to extract the cataract through the pupil or to make a preliminary iridectomy. If the former, all that is required is that a sharp hook shall be inserted through the corneal incision into the pupil and the lens capsule freely lacerated. Slight pressure is then made on the lower part of the globe, either with some such instrument as a tenotomy hook, or with the finger, counter-pressure being made on the upper part of the globe above the incision. The result of this manœuvre is that the lens is tipped up by the pressure, the upper edge pointing a little forwards. The iris stretches and slips over the advancing upper edge of the lens, which then slides

out through the dilated pupil and the corneal incision. The lens having left the eye the pupil contracts again and the iris slips back into the anterior chamber, or may be replaced there with a suitable instrument. Should, on the other hand, an iridectomy be performed, a piece of the iris is removed immediately after the corneal section, before the opening of the lens capsule. The capsule is then lacerated and the lens expressed as before.

The first consideration in discussing the relative value of the two operations is the consistency of the lens itself, for it is by no means the case that a cataractous lens is a hard body which comes away entirely and completely in one piece. In the majority of cataracts there is always a greater or less amount of cortical matter, which is soft and may be left behind in the anterior chamber when the relatively harder nucleus has been removed. In an extraction without iridectomy it is difficult to remove all the soft material, as it may get tucked up under the upper part of the iris. When the operation has been completed, the eye bandaged, and the patient put back to bed, the aqueous is rapidly re-secreted, and if the iris happens to be very close up against the posterior surface of the cornea the aqueous may collect behind the iris, instead of reforming the anterior chamber, and push it out through the wound, causing a prolapse, and prolapse is more likely to occur if there is any amount of soft material behind the pupil.

You will see at once, therefore, that if you wish to avoid a prolapse of the iris, you should select for the operation without iridectomy those cataracts in which you think there may be very little soft material.

Without going into details on this occasion as to the various clinical varieties of senile cataract, I may mention that nuclear cataracts, which are distinctly yellowish or amber coloured, are, as a rule, large, uniform and hard, with very little soft material, and are, therefore, admirably adapted to this method of operation.

Another disadvantage of the operation without iridectomy, which results from soft material being left behind, is that a more or less dense web or after-cataract, formed of remains of lens capsule and soft lens material which has become fibrous, may result, obstructing the patient's free vision, and necessitating a subsequent operation known as "needling," for the purpose of tearing a hole in the web.

On the other hand, the disadvantages of iridectomy are also great. The removal of a piece of the iris makes it easier for the vitreous to escape during the extraction of the cataract, and though soft material can be got out more easily after an iridectomy, it is likely that tags of lens capsule may get involved in the corneal wound. Here they act as foreign bodies, causing iritis, irido-cyclitis, and very often glaucoma. As you see, therefore, it cannot be said that either operation is ideal, and opinions still differ as to which is the better or the safer operation.

Here at Guy's, following Mr. Higgens' footsteps, I more often do the extraction without iridectomy, as in my opinion, provided one chooses suitable cases, better results are obtained, owing to the fact that the patient gets a circular mobile pupil, which has a better appearance than the coloboma after iridectomy; the small pupil also reacts to light, and obviates the disagreeable glare which troubles so many patients after a cataract operation with iridectomy.

Those of you who are interested in the subject, ought to read a paper by Mr. Higgens, published in the *Lancet* in 1907, containing a short account of 130 consecutive cataract operations without a failure.

As you may possibly know, statistics as to the results of cataract operations are extremely difficult to get, especially in hospital practice, for cataract is a disease of old age, and many of the patients die, disappear, or drift into workhouses; when written for, as a rule, not more than 30 per cent. turn up. On the other hand Mr. Higgens' 130 cases were all private patients whom he saw continuously for many years following the operations. As a rule he extracts the cataract without iridectomy unless there is a special reason to the contrary; 83 of the 130 were performed without iridectomy, and 57 eventually had a circular or nearly circular pupil. In 23 the pupil was eccentric, and in five cases prolapse of the iris required removal. Two required iridectomy. In 57 eyes the extrac-

tion was associated with iridectomy performed at the time of the extraction or previously. Mr. Higgens says:—

> "In others I did an iridectomy for closed pupils or for the results of previous iritis, or for corneal opacity, but only once as a simple preliminary to extraction."

You see, therefore, that such an experienced surgeon as Mr. Higgens performed 130 operations for cataract, in which, as far as possible, he deliberately avoided doing iridectomy, and he had no failures, that is to say that no patient failed to see very much better after the operation than before. A great majority of the cases got vision very nearly approaching normal.

To obviate the trouble caused by lens capsule getting involved in the corneal wound after an extraction with iridectomy, Mr. Treacher Collins, of Moorfields, has devised a modification of the operation in that he always removes the anterior layer of the lens capsule with forceps specially adapted for the purpose, instead of lacerating it with a sharp hook. As a result the aqueous which is secreted after the operation has free access to the soft lens material which is left behind, and this is absorbed so that very little web results.

From Mr. Treacher Collin's figures it appears that of the first two hundred cases on which he operated, after removing the anterior lens capsule in this method, no less than 50, or 25 per cent. obtained normal vision without a needling. This is a very high percentage of normal vision, and is probably a better result than can be obtained by any other method. It is not, of course, applicable to those cases in which an extraction is done without iridectomy, but I am so impressed with the method myself that I always do it now in those cases where an iridectomy is done as a preliminary to the extraction.

Before I conclude I must mention a new operation for cataract which has lately come into great prominence, namely extraction of the lens in its capsule, a method associated with the name of Lieut.-Col. Smith, of Jullundur, who has operated on no less than 20,000 cataracts in this way. Briefly, the operation may be said to consist in making the corneal incision as usual, making a small preliminary iridectomy, and then expressing the lens bodily in its capsule, instead of lacerating it. In order that this may be successfully performed, the patient must look up instead of down as in the ordinary extraction, in order to avoid gaping of the wound and loss of vitreous, and a skilled assistant must lift the lid away from the eye in order that the patient cannot squeeze it. If this operation is successful, you will see that it obviates all the complications arising from the presence of tags of lens capsule in the wound, or from opacities as a result of lens material and capsule being left behind. But there seems no doubt from the account given by some observers in India and elsewhere, that the operation requires more force for the removal of the lens than the ordinary method, and that there is risk of severe inflammation in the eye subsequent to the operation. No statistics of any long series of cases are published in Lieut.-Col. Smith's book, though Captain Lister of the I.M.S. publishes results of some 90 cases in which there was a loss of vitreous. It must be said that the visual results of this series of cases is extremely high, confirming what has already been observed, that provided the patient gets over the initial result of any loss of vitreous and escapes infection, the loss has very little effect on the ultimate vision. However, though in some cases Smith's operation appears to give brilliant results, other ophthalmic surgeons in India, notably Major Kilkelly of Bombay, are not at all in favour of the operation, as they think it too risky, and after a prolonged trial they have abandoned it. Certainly the operation has not yet been adopted to any great extent in England and in the United States, where opinions are still sharply divided. I think, however, it may be fairly said that the successful cases under Smith's method get a higher average of vision than is obtained by the ordinary method of extraction, but that there is a much greater risk attached to it, and on this account is not so likely to commend itself to those who desire, above everything, safety in an operation for cataract.

It is impossible in the time at my disposal to go any further into detail as to the various details connected with operation for cataract, and more especially the treatment of immature

cataract, but I want to impress upon you to-day that there is no one ideal operation for the extraction of an opaque lens. The particular operation selected will depend upon the patient himself, his occupation, his probable behaviour under the operation, and last, but not least, the particular character of the cataract itself. But I think it may fairly be said that when all these factors are taken carefully into account, and operations judicially selected, they are usually extremely successful, and in the majority of cases attended by little risk.

Subepithelial Lymphatic Glands.

All the subepithelial lymphatic glands in the body are situated along the alimentary tract. The following is a list of these structures:—

1. Solitary lymph glands, most numerous in the lower end of the ileum and in the large bowel.

2. Peyer's patches in the lower part of the ileum, along the side remote from the mesentery.

3. The vermiform appendix opening into the cæcum.

4. The naso-pharyngeal, faucial, and lingual tonsils about the throat.

The solitary lymph gland has a simple structure. Immediately beneath, and in intimate contact with, the raised single layer of columnar epithelium is placed a lymph nodule, consisting of endothelial cells in the middle with a surrounding zone of lymphocytes, apparently proliferating from the centre. The whole nodule is supported by retiform tissue, and drained by an efferent basal lymphatic vessel, which leads, eventually, to a mesenteric or other lymph gland. A Peyer's patch represents an aggregation of solitary glands. Each lymph nodule has one aspect close to the epithelial surface, which is here uncovered by villi. In the case of the vermiform appendix, the naso-pharyngeal and the faucial tonsils, the epithelial surface is much folded, thus permitting a greater collection of lymph nodules in a small space, yet with each nodule abutting on the surface. Thus are produced the tonsillar crypts and the folds in the appendicular mucous membrane.

The subepithelial glands differ from all other lymphoid collections in having no afferent lymphatics. In an ordinary lymphatic gland the lymph nodules, or germ centres, are arranged peripherally beneath the capsule and they directly receive the entering lymph. In a subepithelial gland these same centres lie against the epithelium of the alimentary canal.

There can be no question that lymphoid tissue plays a very great part in the defence against bacterial invasions. It is situated throughout the body so as to receive the early advance of the attacking micro-organisms. The lymphatic glands undergo considerable enlargement, both in local infections of the area drained, and also in some general infections, such as secondary syphilis. In the lymphatic glands are formed the lymphocytes which form a large proportion of the white corpuscles. With the other corpuscles the lymphocytes greatly increase in number in most septic infections. They are very numerous in most granulomata. Whether they can become phagocytic or not, they certainly play an antibacterial rôle. One may imagine, in the case of a septic finger, the early arrival of the organisms at the axillary glands, their destruction by the lymphocytes, and the over-production and out-pouring of lymphocytes into the blood-stream diminishing the risk of septicæmia. Over-production is a common biological response to stimulation. It is possible that the lymphatic glands may be concerned in the production of some of the antitoxins; for in anthrax, and, perhaps, in erysipelas, the adjacent glands will be enlarged at an early stage, though there is some reason for thinking that the organisms are sometimes confined to the local skin lesion. It may also be said that in virulent septicæmias obvious reaction in the lymphatic glands is characteristically absent.

There are no subepithelial lymphatic glands in the skin. They appear along the alimentary tract, and are more numerous in those parts where bacteria flourish most. They are not found in the œsophagus, where there is no stagnation, nor in the stomach, where the acidity normally inhibits bacterial growth, nor

are they so frequent in the rectum, where the inspissation of the fæces checks the luxuriance of the bacterial growth. But they occur about the pharynx behind the alimentary and respiratory orifices, where fresh bacteria are continually arriving, and in the lower end of the ileum and in the large intestine, especially about the cæcum, which is probably the most infected part of the alimentary tract.

What is the part played by the lymphatic nodules here? A few lymphocytes can be seen escaping into the alimentary canal, but their effect in diminishing bacteria outside must be negligible. They do not sterilise the digestive tract.

On the other hand, they seem especially susceptible to infection. A tonsillitis is far commoner than a glossitis, an appendicitis than a typhlitis. Where the surface is foliated, as in adenoids, appendix or tonsils, the recesses are crammed with micro-organisms. Virulent organisms are often found in the lymphoid tissue.

It is probable that to the subepithelial lymphatic glands man owes a great deal of his acquired immunity to bacterial infections. Acquired immunity can only be attained when there is some susceptibility to the infection. A first vaccination against small-pox must "take" to be successful. In early life, whilst the individual is acquiring immunity, the lymphatic tissue generally is enlarged and active. The appendix, for instance, is continually sampling cæcal bacteria and preparing the body against chance infection, and is by no means the useless organ that some would have it. Adami, in his "Principles of Pathology" (page 446) concedes the likelihood of this:—"The lymphoid elements in the appendix are probably," he says, "concerned in the manufacture of substances that immunise the body against bacterial infection from the lumen of the bowel."

One may speculate that scarlet fever would be much more frequent and more fatal in children after complete removal of Waldeyer's circumpharyngeal ring of lymphoid tissue in infancy; or that bacillus coli infections would be more common and more deadly after early complete removal of the lymphoid tissue of the lower bowel if such an operation were possible. All this, it is needless to say, is no argument against removal of a diseased appendix threatening perforation, or of enlarged adenoids interfering with normal respiration. Indeed, there is such plentiful lymphoid tissue that the remaining parts probably perform their vicarious functions quite efficiently.

The foregoing brief considerations seem to afford some reason for believing that the sub-epithelial lymphatic glands act as the self-immunising stations of the body, and it may well be that occasional attacks of appendicitis and of tonsillitis are a low price to pay for immunity against more serious complaints.

K. H. D.

Pass List.

Final Conjoint Examination, April, 1911.

Medicine and Surgery.

*Carruthers, N. S.	*Sharpley, T. S.
Schlesinger, E. G.	*Steinbach, H.

Medicine and Midwifery.

Foster-Smith, G. T.	Marshall, G.

*Warner, H. P.

Surgery and Midwifery.

*McNair, A. J.

Medicine only.

Gardner, A. L.	*James, H. L.

Surgery only.

Blackwood, B.	Lacey, G. E. W.
*Bodkin, A. M.	*Levinson, W. E.
Cane, L. C. W.	Milton, L.
*Delmege, J. A.	*Pryce-Davies, J.
*Depree, H. T.	*Platts, H.
Griffiths, H. L. S.	*Percival, H. F.
*Irvine, L. C. D.	Symns, J. L. M.

Midwifery only.

Allen, T. S.	Hance, J. B.
Andrew, G. W. M.	Jap-Ah-Chit.
Constant, C. F.	Lloyd, F. G.
Glendining, V.	Reeve, E. G.

*Denotes completion of examination.

Entrance Scholarship in Dental Mechanics, April, 1911.

A. J. Barber.

Prize in General Subjects for Second Year's Dental Students.

G. W. E. Holloway (£10).

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

The Corner of Harley Street: being some Familiar Correspondence of Peter Harding, M.D. (Constable & Co., Ld.) Price 4s. 6d. net.

". . . . The best thing about Harley Street is that there are exactly twelve ways out of it," says the author of this book. It follows from this, does it not, that there are twenty-four corner houses, or thereabouts? Now the important fact for us is that in one of these (91B, not "the tiny one at the end of Devonshire Street"—so much we learn from internal evidence), there lives a wise and witty physician named Dr. Peter Harding.

Now, there are, doubtless, many wise and witty physicians in Harley Street, so you may well ask: "What is there remarkable in this Dr. Harding?" It is this: he has re-discovered in this twentieth century that art which one of our writers has called the gentlest, and which others have told us is a lost art. We never really cared to believe the pessimists, and now here is a book which proves triumphantly that the Art of Letter Writing still flourishes among us. In the intervals of a busy life on the staff of a great hospital and as a consultant, this genial physician finds time to write letters to his friends—real letters, that is to say—and not the extended telegrams which sometimes pass for letters. In them we learn as much about his correspondents as about the writer himself; they and he become as real and living for us as if we had met them personally. We feel to know, like friends of our own, *his* friends: Robert Lynn, the country doctor in Devonshire; Hugh Pontrex, in Mentone; his sister, Miss Sarah Harding; his cousin, the Rev. Bruce Harding; his son, a Cambridge Rugger "Blue," who is going into Medicine; his daughter, an ardent W. S. P. U.-ite; his old aunt, with her lay passion for medical matters. All these good people, and others, become familiar to us from the letters Dr. Harding addresses to them. He writes of many and diverse subjects—golf, vaccines and gastroscopes, middle age, the miracles of Lourdes, the evils of cramming, neurasthenia and modern journalism (he couples them), the trials and triumphs of general practice, the reconciliation of Medicine and the Church. He describes the strange evolution of the qualified doctor from the raw medical student. He was a Rugby player in his time, and counts among what he calls his "super-days" a hospital cup-final when his XV. was defeated "after a gruelling ninety minutes by the team that represented Guy's."

A sane and healthy spirit pervades all the letters, and no trace of cynicism or pedantry is there. One wishes that some of your Colenso Ridgeons and Ralph Boningtons and Cutler Walpoles could call at 91B, and learn there something of the kindly humour, tolerance and virility of this Dr. Harding.

"The Corner of Harley Street" is emphatically a book to read and enjoy, and to wish for more of. Perhaps Dr. Harding in his retirement may be able to write more letters to his friends. But his friends will soon be numbered by thousands, so he must take care to publish the letters in book form, that we all may be able to read them.

Text-book of Operative Surgery. By Dr. Theodore Kocher. Translated by Harold J. Stiles and C. Balfour Paul. (Adam and Charles Black).

This is a translation of the fifth and latest edition of Kocher's well-known Text-book of Operative Surgery. This edition contains an increase of three hundred pages, and some of the parts have been freely revised. The volume deserves a place in the surgeon's library. It exhibits the methods of a famous Continental surgeon who has done much for the progress of his art. Some of the parts, especially those on the surgery of the neck and of the stomach, are of great interest.

One cannot agree, however, with the claim made by the translators in their preface, that "the work now covers the whole field of operative surgery." Some of the sections, certainly, are comprehensive and modern in outlook, but there are some surprising blanks to be discovered by any student who should rely upon the work as a routine text-book. Thus "Fracture" does not appear in the index, and the treatment of the simple and compound varieties is practically unconsidered in the text. The subject of osteomyelitis is hardly touched. Not a word is written about Handley's work on carcinoma of the breast. Hare-lip and spina hifida are not to be found. Intubation of the larynx is not mentioned. The subject of cleft palate is dealt with in a brief and unsatisfactory manner. The "Surgery of the Female Reproductive Organs" occupies three pages! Such operations as vasectomy for enlargement of the prostate, and the injection of a strong solution of carbolic acid for hæmorrhoids are favourably described. The old absurdities about the use of cotton gloves are repeated in this edition. The article on the treatment of infected wounds is much too short and is not up-to-date. The section on anæsthesia, on the other hand, makes very interesting reading, and every etherist might well ponder over the valuable hints in paragraph 3 on page 10, paragraphs 3, 4, 5, and 6 on page 52, the last paragraph on page 57, and elsewhere. It is curious, however, to come across the following sentence, on page 46: "The use of laughing gas, which was first discovered by Horace Wells, in 1844 (according to Rose), has now been abandoned."

There is no article on the correct use of instruments, nor on other points of minor surgical technique. In many places throughout the volume one would have welcomed more about the pathology, more concerning

the indications for operations, and more of the post-operative prognoses. On the whole, the work is unequal in its parts.

Proceedings of the Royal Society of Medicine. Vol. iv., No. 6. April, 1911. (Longmans, Green, & Co.) Price 7s. 6d. net.

The present number of the "Proceedings" opens with a paper on "The Use of Scopolamine, Morphine, Atropine, and similar drugs by hypodermic injection before inhalation anæsthesia," which was read as the opening to a discussion by the Section of Anæsthetics, by Dr. Dudley Buxton. It appears from the discussion that curiously different opinions are held as to the value of the method. Some observers hold, for instance, that the use of morphia, etc., before inhalation anæsthesia increases the post-operative vomiting, while others claim that the *lessening* of this symptom is one of the chief advantages of this method. The latter, we believe, has distinctly been the experience at Guy's. Opinion on the whole subject, as to indications, technique, and special dangers, is apparently still very unsettled, and it must be admitted that the discussion did not assist very much in clearing up these points.

In the Section for Diseases of Children the paper on "The History of Infant Feeding from Elizabethan Times," by Dr. David Forsyth, will be read with great interest, both professional and general. Dr. Forsyth traces the strange changes that have taken place in breast-feeding during the last few centuries, and describes the gradual evolution of artificial methods, with which, on the whole, he feels that the future of infant feeding must lie. With regard to breast-feeding, he shows that the customary period of suckling has progressively diminished from two to three years in the fifteenth century to the seven to nine months at present in vogue.

Dr. Robert Milne gives an account of the treatment of scarlet fever and measles, which he has carried out in Dr. Barnardo's Homes. He claims that, with this treatment, isolation of the patient is unnecessary, that other children may occupy the same room, or even the same bed without risk of infection, and that secondary infections never occur, and, consequently, complications are unknown. The method is as follows:—"During the first four days . . . commencing at the earliest possible moment, I have pure eucalyptus oil gently rubbed in, morning and evening, all over the body, from the crown of the head to the soles of the feet. Afterwards this is repeated once a day until the tenth day of the disease. The tonsils and pharynx I always swab with 1 in 10 carbolic oil every two hours for the first twenty-four hours, very rarely longer. In swabbing I place a firm mop of cotton-wool, the size of the last joint of the patient's thumb, on the end of a pair of forceps, or tie on a pencil, etc. I thoroughly soak the wool in the carbolic oil, and then swab the tonsils and the pharynx as far up and down as possible." It is stated that the discussion on this paper, which we may anticipate will be somewhat contentious, is to be held on May 26th.

In the Laryngological Section, Professor Hobday, F.R.C.V.S., describes an operation, which he describes as "ventricle stripping," for the treatment of "roaring" in horses. The condition is due, in nearly all cases, to partial or complete paralysis of the left vocal cord, the peculiar noise from which the disease gets it name being caused by air passing to and fro over the flaccid cord. The operation consists in opening the larynx through the crico-thyroid membrane and removing the mucous membrane completely from the pouch or ventricle at the back of the vocal cord, so that two raw surfaces are made, which in healing cause the paralysed cord to be retracted out of the lumen of the larynx.

Mr. Herbert Tilley gave an account of a case in which a piece of rabbit bone was removed from a man's right bronchus, where it had been impacted for more than three years, and had caused symptoms of bronchiectasis, including marked clubbing of the fingers and toes.

In the Obstetrical and Gynæcological Section, Dr. Macnaughton-Jones describes a case where hysterectomy was followed by double phlebitis, and pointed out the special danger of thrombosis in these patients, who are anæmic from repeated hæmorrhages. Dr. Blair Bell describes a specimen of primary abdominal pregnancy in a rabbit. The same author has a paper on the Chemical Composition of Hæmatocolpos Fluid, with deductions as to the cause of the normal non-coagulability of the menstrual discharge, and of the acidity of the vaginal secretion.

Dr. Milligan and Mr. Ballance contribute two useful papers to the Otological Section on injuries to the External and Middle Ear, and to the Middle and Internal Ear, respectively.

In the Pathological Section there is a paper by Mr. H. R. Dean, of the Lister Institute, on "Studies in Complement Fixation with Strains of Typhoid, Paratyphoid, and Allied Organisms." Mr. Dean states that the complement-fixation method forms an extremely delicate and specific means of differentiating between various members of the typhoid group.

In the Surgical Section is a paper on "The Inguinal Method of Radical Cure for Femoral Hernia," by Mr. C. H. Fagge.

MESSRS. P. S. KING & SON will shortly issue *Medical Revolution: A Plea for National Prevention on the Basis of a Natural Interpretation of Disease.* The author, a retired general practitioner, contends that the root principle of the cellular pathology, "every disease is rooted in an organ," is false, and that, therefore, most diseases, at present so-called, are not diseases but merely symptoms, and that no true diagnosis has been made until the primeval and contributory causes of the symptoms have been traced. This leads, of course, to the advocacy of preventive as against merely curative measures. Now that legislation for the improvement of the national health is imminent, and a great Conference on Destitution is about to meet, this root-and-branch reformer of our medical service will merit the attention of all who have the national well-being at heart.

Guy's Hospital Christian Union.

Fixtures.

Two lectures will be given by the Rev. C. L. Drawbridge.

Thursday, May 18th, 5 p.m.—"Genesis and Evolution."

Thursday, May 25th, 5 p.m.—"Natural Science and Christianity."

The chair will be taken each day at 5 p.m. sharp in the Committee Room, Medical School, by Charters J. Symonds, Esq., M.S.

Notice.

School Examination in Medicine, May, 1911.

The School Examination in Medicine for admission to the Revision Classes in Medicine, will be held in the Medical School Committee Room, on Monday, May 15th, at 10 a.m.

The Revision Classes in Medicine begin on Monday, May 22nd, at 4 p.m.

HERBERT FRENCH.

Examinations for Commissions in the Royal Army Medical Corps.

The next Examination of Candidates for Commissions in the Royal Army Medical Corps will commence on Wednesday, July 26th, 1911, but Candidates will be required to attend for Physical Examination, etc., on the 24th and 25th.

The number of Commissions for competition on this occasion is not less than 20.

Candidates must be between 21 and 28 years of age at the date of the Examination, and must hold diplomas recognised by the General Medical Council as qualifying to practise in Great Britain and Ireland.

The Examination will be conducted in the subjects of Medicine and Surgery.

The written part of the Examination consists of commentaries on cases set by the Board of Examiners, and reports on cases examined by the Candidates. The remainder of the Examination is of a clinical and practical nature. The Examination is arranged to test the practical knowledge and experience of Candidates.

Copies of the Regulations for admission, and an account of the conditions of the Service under the Royal Warrant of 1909, may be obtained on application to the Dean of the Medical School, or to the Director-General, Army Medical Services, War Office, Whitehall, S.W.

Successful Candidates will be duly notified as to the date and place of joining.

Sport.

Lawn Tennis.

Fixtures for 1911.

FIRST VI.

May	10	W.	Mr. G. Stoddart's VI.	Home
	13	S.	Dulwich Farm	Home
	17	W.	Burhill (1st round Surrey Senior Cup)	Away
	20	S.	Surbiton	Home
	27	S.	Caius College, Cambridge ...	Away
	31	W.	University College, London ...	Home
June	3	S.	Balliol College, Oxford	Away
	5	M.	Hillside	Home
	7	W.	Mr. G. P. Allen's VI.	Home
	10	S.	Finchley	Home
	14	W.	Chiswick Park	Away
	17	S.	Blackheath	Home
	21	W.	University College, London ...	Away
	24	S.	Redhill	Home
July	1	S.	Kent	Home
	8	S.	North Kensington	Home
	15	S.	Chiswick Park	Home
	22	S.	Surbiton	Away
	29	S.	Boundaries	Away

SECOND VI.

May	13	S.	Sanderstead (1st round Surrey Junior Cup)	Home
	20	S.	Woking	Away
	24	W.	St. Thomas's "A"	Away
	27	S.	Downing College, Cambridge, and Highgate "A"	Away Away
	31	W.	Middlesex Hospital	Away
June	1	Th.	Royal Dental Hospital	Home
	3	S.	Hertford College, Oxford ...	Away
	10	S.	Wimbledon "A"	Away
	14	W.	St. Mary's Hospital	Home
	17	S.	Chiswick and West London ...	Away
	21	W.	St. Mary's Hospital	Away
	24	S.	Watford	Away
	28	W.	Middlesex Hospital	Home
July	1	S.	Malden	Away
	4	Tu.	Royal Dental Hospital	Home
	8	S.	Hillside	Away
	12	W.	St. Thomas's "A"	Home
	15	S.	Watford	Away
	22	S.	Woking	Home
	29	S.	Chiswick and West London ...	Home

GUY'S 1ST VI. v. REDHILL.

This match took place at Redhill on Saturday, May 6th, when the Hospital were defeated, after a very closely contested game, by five matches to four, a very fair per-

formance considering Redhill included Kenneth Powell, S. Hardy, and W. A. Waller in their team. Score:—

A. S. Roe and W. R. Reynell beat E. Burt and E. Tatham, 6–4, 6–4; beat W. A. Waller and F. P. Dunn, 6–2, 6–3; lost to K. Powell and S. Hardy, 5–7, 3–6.

R. Curle and L. A. Graham lost to Powell and Hardy, 2–6, 0–6; lost to Waller and Dunn, 6–8, 6–8; beat Burt and Tatham, 6–4, 6–1.

G. H. Hunt and R. H. Lucas lost to Waller and Dunn, 6–8, 2–6; lost to Powell and Hardy, 2–6, 1–6; beat Burt and Tatham, 6–3, 6–4.

GUY'S 1ST VI. v. MR. G. STODDART'S VI.

This match was played at Honor Oak Park on Wednesday, May 10th, and resulted in a victory for the Hospital by six matches to three. Score:—

A. S. Roe and W. R. Reynell beat J. R. Brinkley and H. Gilbert, 6–3, 8–6; beat O. G. M. Turnbull and R. Freshveille, 6–2, 6–2; beat G. Stoddart and T. Powysllech, 5–7, 7–5, 6–1.

R. Curle and L. A. Graham beat Turnbull and Freshveille, 6–3, 9–7; lost to Stoddart and Powysllech, 6–1, 4–6, 3–6; beat Brinkley and Gilbert, 6–3, 11–9.

H. Sharpe and R. H. Lucas beat Stoddart and Powysllech, 6–2, 6–3; lost to Brinkley and Gilbert, 6–1, 3–6, 2–6; lost to Turnbull and Freshveille, 2–1, 6–1, 2–6.

Guy's Hospital Rifle Association.

THE Inter-Hospital Competition starts very soon, and it is hoped that there will be plenty of men to fill the vacancies in last year's team. We won both Inter-Hospital Cups last year, and if only men who can shoot will put their names on the list in the Smoke Room, or make themselves known to the Hon. Secretary, there is no reason why we should not retain both Cups.

G. A. BLAKE, Hon. Sec.

Papers, etc., Received.

Report of the Hampstead Scientific Society. 1910. 3d. —The Hampstead Scientific Society was founded in 1899 for the promotion of the study of astronomy, natural history, and other branches of science. The report for 1910, which contains interesting abstracts of papers read before the Society, has for its frontispiece a recent portrait of Sir Samuel Wilks, the distinguished president of the society from 1902 to 1909.

First Aid in Collieries.—By T. L. Llewellyn, M.D. Lond. (The Colliery Guardian). Price 1d.

From the Gazette's Special Pathologist.

NOTICES.

ALL specimens—particularly those of solid tissues—should be accompanied, if possible, by a short clinical and post-mortem history, and a postal order for 2s. 6d. An extra charge of 6d. per slide is made when prepared sections are to be forwarded.

Directions to be followed in sending *Diphtheritic Membrane*:—Remove as much of the membraneous exudation as possible with a pair of forceps, which have been sterilized by boiling water. Place the exudation in a small, perfectly clean empty bottle, with a well-fitting glass stopper, and forward without delay. No preservative fluid should be used. The specimen must be accompanied by a Postal Order for 5s. A telegram will be despatched immediately the examination of the specimen is completed.

Diphtheria specimens are to be labelled *Immediate*.

Specimens, Letters, and Postal Orders should be addressed to the MANAGER, Gazette Office, Guy's Hospital.

R. C.—This muco-purulent specimen of sputum is seen to contain a moderate number of influenza bacilli and a very few pneumococci and streptococci.

PATHOLOGIST.

COMPLIMENTARY DINNER TO MR. BUTLIN.—On the initiative of the Metropolitan Counties Branch of the British Medical Association, a complimentary dinner to Mr. Butlin, the President of the Association, has been arranged to take place on June 13th next. A Dinner Committee has been formed with Dr. Lauriston Shaw, the President of the Metropolitan Counties Branch, as Chairman, with Dr. Hugh Ker as Treasurer, and Mr. D'Arcy Power and Dr. William Griffith as Honorary Secretaries. The dinner will take place at the Connaught Room at 7.30 p.m., and the price of the dinner ticket, exclusive of wine, has been fixed at half a guinea. It is hoped that every one who desires to be present will make immediate application to the Honorary Secretaries, Butlin Dinner Committee, 429, Strand, W.C.

Births.

MORTON PALMER.—On the 8th May, at 13, Orchard Gardens, Teignmouth, S. Devon, the wife of F. W. Morton Palmer, M.D., M.A., B.C. Cantab., of a daughter.

PRIDEAUX.—On May 1st, at Ermington, Dorchester, the wife of A. E. Dunkin Prideaux, L.D.S. Eng., of a daughter.

Deaths.

JONES, W. W. CADWALADR, M.R.C.S., L.D.S., on Tuesday, May 2nd.

KNAGGS, SAMUEL.—On April 23rd. at 2, Bradley Lane, Huddersfield, Samuel Knaggs, M.R.C.S., L.S.A., aged 82 years.

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Passim.

SELDOM has there been a Parliamentary project of such deep interest to the Medical Profession as the National Insurance Bill at present before the country. As medical men, as citizens, and as humanitarians, we must welcome it as a great advance in our civilisation, but because we are all these things, and particularly because we have a living to make, we must watch carefully that part of it which primarily affects us as a profession. Every great reform which benefits the majority is bound to bring with it certain disadvantages, and to affect the minority adversely, and although full details are not as yet available, it appears that a certain class of practitioner is to form part of this minority. Unreasoned opposition to a great project just because it brings certain personal pecuniary losses is both undignified and unpatriotic. On the other hand altruism can be carried too far. Therefore, it behoves us to use our utmost endeavours to obtain a proper recognition of the entire dependence of this scheme on medical co-operation, and to ensure an adequate payment for services given.

MR. FREMANTLE summarises and comments on the Bill elsewhere in our columns, but there are a few points which we would wish to amplify. In the first place he is not correct in stating that the voluntary hospitals are unable to benefit in any way under the Act, because the Bill provides "that an approved society may grant such subscriptions or donations as it may think fit, to hospitals and other charitable institutions." Much has been said of the probable effect of the Bill on hospital finance, and the degree to which it will curtail subscriptions from employers of labour. It is not generally known to what a small extent the large hospitals depend upon subscriptions from the living for their support. In the case of Guy's for example, during the last year, out of a total income of £76,100, only £3,300 was derived from annual subscriptions, and £2,900 from donations, which included £375 from the Ladies' Association. Consequently, any losses the Hospital may entail, should be small, and will be to some extent compensated by benefits under the Bill.

Two features strike us as calling for almost super-human judgment on the part of medical men. Firstly "a person diseased by his own misconduct shall not be entitled to any other than medical benefit." We can see some pretty problems of etiology involved! Is cirrhosis necessarily alcoholic, and are all aneurysms syphilitic in origin? suggest themselves as questions to be faced in the future Secondly, complaint is to be made by the local authority in cases of excessive sickness due to fault in the nature of employment, housing, water supply, &c., and if such complaint is substantiated, the person or authority involved may be held liable. Here again, a nicety of medical judgment is called for in the separation of causative from contributary conditions, which a lay mind is hardly capable of appreciating.

WE would particularly associate ourselves with Mr. Fremantle's suggestion as to the appointment of Medical Registrars for the express purpose of certification, and would emphasise it as a scheme well worthy of due consideration. The prevention of malingering will, undoubtedly, be one of the most difficult points to be faced by the State doctor, and the complete disassociation of treatment and certification would go a long way towards its solution. The Medical Registrar might be called upon at will by either employer or employee, since his intervention in every case would obviously be unnecessary. Treatment would by this means be greatly simplified, and any tendency to encourage malingering, knowingly or unknowingly, would be effectively met. Further, we join Mr. Fremantle in his condemnation of any large scheme of sanatorium treatment, as being a palliative measure, the cost of which is not justified by its ultimate results.

AN adequate knowledge of Public Health work, which we at the Hospital are rather apt to confuse with abstruse points in the anatomy of drain-pipes, becomes daily of greater importance. We would therefore call attention to a letter in our correspondence columns on the National Conference on the Prevention of Destitution, to be held in the Caxton Hall next week. The meetings will be open to anyone, and the subjects to be discussed include: The Medical Treatment and Inspection of School Children, on Tuesday; The Work of the Public Health Authority in relation to Births and Infancy, on Wednesday; The Physical Bar to Employment, The Relation of Sickness and Invalidity Insurance to the Public Health, on Thursday; and The Need of a Unified Public Medical Service, on Friday.

AT a General Court of the Governors, held on Friday, May 5th, Hector Charles Cameron was appointed an Assistant Physician to the Hospital. Dr. Cameron qualified at Cambridge in 1906, and in the same year became H.P. to Dr. Hale White. At the end of 1906 he was appointed Demonstrator of Physiology, and in the following year took his M.R.C.P., and became a Medical Registrar. In 1909 he took the degree of M.D. Camb. We congratulate Dr. Cameron on his appointment, and wish him every success in his new work.

WE are always interested in seeing ourselves as others see us, and were amused and edified at an illustrated article on "Les Étudiants Anglais," which appeared in the current number of the "Fantasio":—

> ". . . L'étudiant anglais est avant tout sportif. Il ne vit pas à la brasserie, mais sur le *common*, pour y disputer, le mercredi et le samedi, des matches de foot-ball ou de cricket. C'est un garçon qui prend deux tubs par jour, fume la pipe et passe la moitié de son temps vêtu de laine et les genoux nus. A deux heures d'intervalle, vous le verrez rentres chez lui boueux, harassé, puis en ressortir en smoking dispos et très gentleman."

Then follow a number of illustrations of the Final Rugby Match, one of which bears the subscription "En route pour Clapham Common!" After referring to the Guy's partisans as "les chimistes avec leure boîte à lait," the article ends with the following peroration:—

> "Et quand ils ont bien couru, bien crié et clôturé leurs matches par trois *hurrahs* féroces, les étudiants prennent d'assaut les *tea-rooms* qui fourmillent sur les *commons* et ils y dévorent une douzaine de ces énormes gâteaux bon marché et peu digestifs dont l'Angleterre a le secret."

WE publish elsewhere an account of the annual meeting of the Ladies' Association, by which it will be seen that the past year has been an exceptionally successful one. Success is, however, only useful as an incentive to further effort, and every endeavour is to be made to increase both the numbers and the work of the Association. We would appeal to past and present Guy's men to urge "their cousins and their sisters and their aunts," as well as their other feminine relatives, to join the League and to help it in its valuable work. Intending members may obtain all particulars from the Hon. Sec., Mrs. L. Shaw, Guy's Hospital.

WE offer our heartiest congratulations to Mr. R. A. Rankine, who passed first at the recent Entrance Examination for the Royal Navy.

WE deeply regret to learn that Mr. Targett has recently had to undergo an operation for appendicular abscess. He is at present progressing as favourably as can be expected, and we wish him a speedy and complete return to health.

National Insurance Bill.

By F. E. FREMANTLE, County Medical Officer of Health for Herts.

THE Editor has kindly asked me to write a general account of this Bill in such a way as to interest the readers of the GAZETTE, and especially those who have not yet entered into the battle for existence in professional life. It is a good thing for men at the hospital to keep in touch with the national movements in which their profession must take a prominent part and in which they should be preparing themselves to take a part that will be patriotic in the soundest sense. It is, moreover, pleasing to an old editor of the GAZETTE once again to burn the midnight "osram" and wield the journalistic pen in such a task. It will be best first to give an account, as brief as possible, of the actual organisation proposed and to criticise it afterwards.

CLASSES AND NUMBERS OF INSURED.—Insurance is to be compulsory for all persons employed under contract or apprenticeship, written or implied, including outworkers, boatmen and cabmen—with certain exceptions for the navy and army, teachers and others already otherwise provided for—and for those engaged in non-manual labour earning up to £160 a year, and for those in casual employment. This would apparently include medical students holding appointments, and certainly residents and nurses.

Voluntary insurance is also to be allowed for others mainly dependent on their earnings for livelihood, however well-to-do, and for those who have previously been insured for five years and are not independent. No one may enter the insurance scheme if over 65. Anyone may be exempt from insurance, if not employed for more than 39 weeks a year, if he is also dependent upon some other person or in receipt of an annual income of £25 not dependent upon his personal exertions.

The scheme is mainly to be worked by Approved (*i.e.*, Friendly) Societies. Those who do not belong to or join friendly societies will contribute to a post office fund. It is reckoned that the maximum number of contributors in 1912 will be as follows :—

	Members of Approved Societies.		Post Office Contributors.	Total.
	Compulsory.	Volunt.		
Men	8,579,000	625,000	638,000	9,842,000
Women :—				
Spinsters and Widows ...	3,080,000	204,000	191,000	3,475,000
Married ...	548,000	—	53,000	601,000
Total Women	3,628,000	204,000	244,000	4,076,000
Both Sexes ...	12,207,000	829,000	882,000	13,918,000

This compares with an estimated population for the United Kingdon of about 45,000,000.

INCOME OF INSURANCE FUND.—The employer will pay 3d. a week; the insured, if a man 4d., if a woman 3d. a week, with reductions where the wages do not exceed 2s. 6d. a day. The State will add two-sevenths, making two-ninths

CONTRIBUTIONS LEVIED IN GERMANY AND IN THE UNITED KINGDOM.

Weekly Income.	From the Insured. United Kingdom (under the Bill).	From the Insured. Germany. Sickness.	Invalidity.	Together.	From the Employers. United Kingdom (under the Bill).	From the Employers. Germany. Sickness.‡	Invalidity.	Together.
s.	d.	d.	d.	d.	d.	d.	d.	d.
30	4*	8½†	2¼	10¾	3	4½	2¼	6½
27	4*	7½†	2¼	9¾	3	3¾	2¼	6
24	4*	6¾	2¼	9	3	3¼	2¼	5½
21	4*	6	1¾	7¾	3	3	1¾	4¾
20	4*	5½	1¾	7¼	3	2¾	1¾	4½
18	4*	5	1¾	6¾	3	2½	1¾	4¼
15	3	4¼	1½	5¾	4 (3§)	2	1½	3½
12	2	3¼	1½	4¾	5 (4§)	1¾	1½	3¼
9	1	2½	1¼	3¾	6 (4§)	1¼	1¼	2½
6	1	1¾	¾	2½	6 (4§)	¾	¾	1½

* For Women, 3d.

† Assuming contributions to be levied on *maximum* earnings of 5s. a day.

‡ No allowance is made here for the cost of book-keeping, which in the case of factory funds falls on the employer.

§ For Women.

of the whole of these contributions for men; one-third, making one-fourth of the whole for women, *i.e.*, twopence a week in most cases and a proportionate amount where wages do not exceed 2s. 6d. a day.

COMPARISON WITH GERMANY.—Since this scheme is founded to a large extent on the German experience, the payments may with advantage be given in comparison with those of Germany. It must be noted that our National Insurance Bill proposes to combine the separate provisions made in Germany for sickness and for invalidity, the latter being a continuation of the former (see table, p. 211).

No insured person will pay after the age of seventy. The employer, however, will pay even for persons in his employ too old to be insured. Voluntary contributors will pay at rates according to age on entry. Payment will be made by the employer both for himself and, as deduction from wages, for the employed by means of stamped books or cards. Even the small householder will have to buy stamps every week for this purpose for the servants in his household.

The total annual expenditure in 1913–14 is reckoned roughly at £8,000,000 compulsory and £600,000 voluntary for men; £2,750,000 compulsory and £160,000 voluntary for women, or a total of nearly £12,000,000, in addition to £3,500,000 from the State; or over £15,000,000 in all, to insure 14,000,000 compulsory and 2,000,000 voluntary contributors, or over one-third of the population. In addition to this it will be remembered that the State pays £13,000,000 in old-age pensions. In Germany, one-fifth of the population are insured against sickness, one-fourth against invalidity and old age, at a total cost to the State of £2,500,000.

BENEFITS.—A. NORMAL.

1. Medical benefit, viz.: Treatment, medical attendance and drugs, except during the first six months after the Act comes into operation. No direct provision is made for nursing.

2. Sanatorium benefit, viz.: Treatment in sanatoria "or other institutions" for tubercle or such other diseases as the Local Government Board may appoint. This is a somewhat capacious net; but would not, probably, be used except for tuberculous sanatoria and open-air schools. As it stands, the clause would admit of subsidies to general hospitals and poor-law infirmaries.

3. Sickness benefit, viz.: Weekly payments, commencing the fourth day after notice is given of disease, of 10s. for men and 7s. for women for three months, and of 5s. for men and women for the next three months, with reduced rates for young persons or for persons over fifty. This will not be payable for the first half year after the person has entered the scheme, or for disease commencing during that half year; nor when, as in case of domestic servants, board and lodging are given by the employer; nor to inmates of hospitals. A person diseased by his own misconduct shall not be entitled to this or any other except medical benefit.

4. Disablement benefit, viz.: 5s. per week for so long as disease or disablement continues after the determination of the sickness benefit, *i.e.*, after six months. This benefit will not be payable until the insured has paid two years' contributions; nor for disease commencing during these two years.

5. Maternity benefit, viz.: 30s. in case of confinement to insured woman or wife of insured man, during receipt of which no medical, sickness or disablement benefit shall be payable. An insured woman therefore receives considerably less than if she were ill for the same time. This benefit will not be payable during the first half year or for a voluntary contributor during the first year after entry into the scheme; and only if the woman carries out rules to be laid down, including a month's rest from employment after the birth.

BENEFITS.—B. ADDITIONAL.

In certain circumstances in the future the following further benefits may be provided:—

1. Medical treatment and attendance for those dependent on the insured.

2. Increase of sickness or disablement benefit for all insured or for those having children or a specified number of children dependents.

3. Sickness benefit to cover also first few days of sickness and to last at the higher rate during the second quarter.

4. Increase of maternity benefit.

5. Allowance during convalescence.

6. Foundation and maintenance of convalescent homes.

7. Addition to existing old-age pensions or payment of old-age pensions at earlier age than seventy.

8. Payments in want or distress.

9. Payments to inmates of hospitals.

These benefits include all those given by the German law except the funeral benefit. With regard to the sickness and disablement benefits, the comparisons are as follows:—

THE UNEMPLOYED.—If payments are in arrear by more than thirteen contributions in the year, the insured loses all benefits; but his contributions are credited to the next year, and if again employed he can either pay up his

MAIN BENEFITS PAID IN GERMANY AND IN THE UNITED KINGDOM.

United Kingdom.					Germany.		
Weekly Income.	Contributions.	Sickness Benefit. 1st 13 weeks.†	Sickness Benefit. 2nd 13 weeks.	Disablement Benefit.	Contributions.	Sickness Benefit (26 weeks).‡	Invalidity benefit (after 20 yrs. uninterrupted Contributions).
s.	d. d.	s.	s.	s.	d.	s. d. s. d.	s. d.
30	4 (3*)	10	5	5	$10\frac{3}{4}$	15 0 (or 12 0§)	5 $3\frac{1}{2}$
27	4 (3*)	10	5	5	$9\frac{3}{4}$	13 6 (or 12 0§)	5 $3\frac{1}{2}$
24	4 (3*)	10	5	5	9	12 0	5 $3\frac{1}{2}$
21	4 (3*)	10	5	5	$7\frac{3}{4}$	10 6	4 $8\frac{1}{4}$
20	4 (3*)	10	5	5	$7\frac{1}{4}$	10 0	4 $8\frac{1}{4}$
18	4 (3*)	10	5	5	$6\frac{3}{4}$	9 0	4 $8\frac{1}{4}$
15	3	10	5	5	$5\frac{3}{4}$	7 6	4 1
12	2	10	5	5	$4\frac{3}{4}$	6 0	4 1
9	1	10	5	5	$3\frac{3}{4}$	4 6	3 5
6	1	10	5	5	$2\frac{1}{2}$	3 0	2 $8\frac{1}{2}$

* For women.
† For women 7s. 6d. throughout.
‡ Conditionally upon the person being an employed insurer or having paid the insurance contributions.
§ According as contributions were levied on *maximum* earnings of 5s. or 4s. a day.

arrears or start afresh with previous payments to his credit. While in arrear his sickness benefit during the first thirteen weeks is reduced in proportion to the amount of arrears. If he continues to be unable to pay, he may be dealt with under the second part of the Bill dealing with unemployment in certain trades, which we do not now propose to consider. In default of insurance benefits, he can, of course, have resort to relief under the Poor Law.

INMATES OF HOSPITALS.—These receive no sickness, disablement or maternity benefit; but the benefit due to them is paid to their dependents. An interesting definition of dependents is given, including husbands and wives, parents, step-parents and grand-parents, children, step-children and grand-children, brothers and sisters, half-brothers and sisters. Workers are therefore in future relieved of responsibility, at least in this respect, for aunts and uncles, mothers-in-law, and less intimate connections.

If the insured has no dependents, benefits due to him are paid to the local health committees under the Act for general purposes. Sickness and maternity benefits may, however, be paid to a sanatorium of which the insured is an inmate, if admission to such sanatorium is conditional on payment of at least half the cost of maintenance.

ADMINISTRATION OF BENEFITS.—Approved societies administer all benefits with regard to their own members, except the sanatorium benefit. Sanatorium benefit and all other benefits for post-office contributors are administered by the Local Health Committees to be formed under the Act.

The approved societies and the local health committees are to arrange "with duly qualified medical practitioners for insured persons to receive attendance and treatment to the satisfaction of the Insurance Commissioners" to be appointed under the Act. They are also to make provision for the supply of drugs for separate payment, except that in rural districts an inclusive fee for medical attendance and drugs may be specially allowed. For sanatorium benefit, local health committees are to contract with owners of sanatoria; and for this purpose there shall be devoted the sum of 1/4 for every insured person, of which 1d. is contributed by Parliament and may be retained for purposes of research. The sums estimated for this benefit in 1913–14 are £842,000 from employers and insured and £56,000 from Parliament. The local health committees are to decide if cases are suitable for sanatoria. There will thus soon be available a total of £1,000,000 for maintenance of sanatoria, in addition to the grant provided in this year's budget of a capital sum of £1,500,000.

All arrangements and regulations, whether of approved societies or local health committees, are subject to the sanction of the Insurance Commissioners, and the accounts are subject to periodic valuation under the Treasury.

Approved Societies.—These must have, or be likely soon to have, at least 10,000 members, and must be managed on orderly and democratic lines, subject in every case to the approval of the Insurance Commissioners. They are to have local committees for every locality containing 1,000 insured persons or, on requisition of 50 persons, for localities containing 250 insured persons. These societies will be perfectly independent of each other and entitled to pick and choose their own members according to approved rules. Many of them will doubtless charge higher contributions than the minimum rate, and the surplus may be employed in giving the additional benefits already enumerated, or in giving subscriptions or donations to hospitals and other charitable institutions, or to the support of district nurses or of nurses appointed by themselves to visit their insured members.

Post Office Insurance.—Those who do not belong to or join approved societies must contribute to the post-office fund. If any person wishes to leave an approved society and be transferred to the post-office fund, the sum with which he is credited is transferred with him. A new contributor shall not have sickness benefit till after making one year's payments. Each contributor's fund is kept as a separate account, and the local health committee has to decide in what proportion it shall be expended in case of need on medical benefit and sickness and other benefits or on administration expenses. On exhaustion of his account the insured person is only entitled to medical and sanatorium benefits and to those only to the end of the current year.

Special Classes of Insured.—An insured *woman*, on marriage, unless still employed, ceases to receive benefits until a month after death of husband or separation, or until she is again employed. *Aliens* over 16 are admitted only to the post-office fund, but are to have no benefit from Parliamentary funds. The British widow of an alien counts as British.

For *sailors and soldiers* twopence per week is to be deducted from their pay; the Admiralty and Army Council will add such a sum as may be prescribed; these moneys being paid to the Insurance Commissioners for a separate account, credit being given for previous contributions to approved societies. On discharge the Insurance Commissioners may arrange for sickness and disablement benefit; or the names may be transferred to approved societies or post-office fund, credited with their "transfer value." This applies also to reserves and territorial force in training or mobilisation.

The Insurance Commissioners are to be appointed by the Treasury, are to adminster all moneys paid into the "National Health Insurance Fund," are to have offices in London, with branch offices, and with such officials as they require, their expense being paid by Parliament.

An Advisory Committee is to be appointed by the Insurance Commissioners, to represent associations of employers, approved societies, and others, medical men not being specifically mentioned.

Local Health Committees are to be formed for every county and county borough; one-fourth of the members are to be appointed by the Insurance Commissioners, two being medical practitioners. Of the remainder, from 9 to 18 in number, one-third are to be wholly or in part members of local sanitary authorities, *i.e.*, district councils, appointed by the county council; one-third to be appointed by approved societies; one-third to be appointed by associations of post-office contributors, or to be co-opted, or to be appointed by the Insurance Commissioners.

These Committees, besides distributing the benefits for post office contributors and the sanatorium benefit for all contributors, are to consider the local needs of public health, to make reports and recommendations, to arrange for lectures and publication of information, and to have the advice and services of the County Medical Officer of Health.

Excessive Sickness. — Either approved societies or local health committees may complain to the Local Government Board of excessive sickness in their area, due to fault in the nature of employment, in housing, water-supply, health in factories, insanitary conditions, or neglect of statutory regulations, whether as against sanitary or other local authorities, or as against private employers or owners. The Local Government Board may then hold an inquiry, and on finding that the sickness has been ten per cent. in excess of the average expectation of sickness either during an epidemic or during a period of three years, and that this was in part due to any of the aforesaid causes, may charge the extra expenditure on the person or authority to whom it is due.

Disputes and Penalties.—All disputes are to be decided finally, without right of appeal, by the Insurance Commissioners; except that in disputes as to contributions and qualifications of the insured, an appeal lies to the county

court, and then to a judge, to be selected by the Lord Chancellor. Penalties for false statement, with a view to securing benefits, are admitted to three months' hard labour; and for other contravention of regulations, for each offence, up to £10.

A few remarks may be added with regard to the Bill thus summarised.

1. *The effect on hospitals* is of first importance for Guy's. The in-patients' department can hardly be affected. It is difficult to see how the local health committees or approved societies can, even if they wish it, give contributions to Guy's. Perhaps this is as well; for such contributions would do away with the voluntary character and therefore the independence of the hospitals and lead inevitably in the end to municipalisation.

The finances indeed are liable to be affected adversely by employers, who will economise in such subscriptions in order to repay their compulsory repayments under the Bill. With regard to out-patients, there may be a considerable diminution of attendance, especially of those who find it difficult to attend, whether for distance or any other reasons, and who will now be entitled to medical attendance from private practitioners under the Bill. Subscriptions and legacies to hospitals are said to depend on the number of out-patients.

2. *The effect on private practice* naturally looms largest in the eyes of the profession. One hopes that it may be handled by the profession and by Parliament mainly as a question of efficiency and not one of "justice"; for the standard of justice is very variable, while that of efficiency is capable of scientific proof. Medical men may be sure that their standard of justice will be reached if provision is made for true efficiency; whereas if they ask merely for justice they may get justice of a very low standard and comparatively low efficiency. This has been the bane of the German scheme recognised by our Chancellor in introducing the Bill; and may therefore be a most useful precedent on which to base our case for proper consideration.

It will be noted that no method of payment of medical men has yet been laid down. Medical benefit is to be administered to the satisfaction of the Insurance Commissioners. Much, therefore, depends on the appointment of those Commissioners, and the medical profession might justly propose that a considerable proportion of these Commissioners should be medical men, especially men versed in practice amongst the poor or less well-to-do.

Proper medical representation should be insured on each body of officials concerned in the administration of this Act. The lawyers and politicians will be sure to consider they are acting liberally if they grab most of the appointments for themselves and leave one or two minor nitches "above the line" to be filled by medical men. The proportion I would suggest would be about one-third for medical men and the rest to be divided between politicians and lawyers, actuaries and experts in friendly society work.

With regard, however, to the payment suggested for doctors, the actuaries have based their calculations on the average payment of 4s. for medical treatment and attendance and 2s. for the provision of drugs per year for every person insured. This is reckoned to work out at a total sum of £2,638,000 to the medical men employed under the Bill in the year 1913–14, and this may or may not be an actual increase on present earnings, with the advantage of regular payment and relief from trouble connected with the payment. But any such rate would certainly work hardly in a very large number of cases, especially for those medical men who at present work amongst persons earning regular but small incomes, for instance, in the suburbs, who might become voluntary contributors under the scheme, and so get all their medical benefit for 4s. a year, instead of the sums, often considerably higher, which they at present pay.

3. Another most difficult subject is the *choice of doctors*. People naturally wish to be able to choose their own doctors, even if they recognise that the State should exercise some selection amongst the doctors whom they may be allowed to choose. If, however, the principle of allowing choice of doctors is admitted, practically speaking every doctor must be on the "panel." The objection to this is that even if there were no black-sheep in the profession, there is an immense diversity of character; some amongst us being naturally prone to generosity at our own expense or at the expense of the public authorities, while others feel a heavy responsibility with regard to the effect upon the recipient and do not feel justified in giving or prescribing benefits unless the need is pressing. The result, therefore, of a free choice of doctors would be to encourage those who are generous, but often careless; and to discourage those who are strict, even if they are sometimes too hard-hearted.

The main difficulty of the insurance system in Germany has been the encouragement of malingering, and we can imagine only too well

one malingerer or even a slacker amongst workmen telling another over his half-pint of beer that Dr. Robinson was much more generous than Dr. Jones in certifying disablement. The need, therefore, of efficient supervision is imperative.

I would like to make a suggestion I have not seen made before, that the duty of certification should be kept entirely apart from that of treatment; that medical registrars be appointed, who would not be allowed to engage in private practice and whose duty it would be to give the certificates, certifying the insured as qualified for the various benefits under the Bill. This would be admirable work for men recently qualified, if they could first be given a certain experience in similar work as registrars in the out-patients' department, for instance, at Guy's.

4. The *maternity benefit* is likely to be very valuable, as it will only be given to women who stay away from work for four weeks after confinement. It may settle the difficulty with regard to the employment of midwives, and the payment of the fee of doctors summoned by midwives in the case of emergency. But much will depend on the way in which the benefit is to be spent. Doctors, midwives, "helps," drugs, and extra food, will leave nothing for the infant born.

5. The regulation and maintenance of *sanatoria* on a gigantic scale is a terrible instance of taking ideas, cut and dried, as "made in Germany." We all know now that costly sanatoria are unwarranted; that dispensaries are far more useful in checking tubercle; that cheap shelters erected in gardens or on the roofs of houses at home, under proper medical supervision, are far more effective in the long run in dealing with the working classes; and that most good is to be gained from personal influence on the individual at home. We want very few sanatoria, and those only of the flimsiest character, to be used only in default of home treatment.

6. The action of the local health committees in stirring up everybody who is responsible for *excessive sickness*, seeing that it is to their advantage to diminish the sickness, and so to diminish the benefits they will have to pay, is likely to be of the very first importance on the public health.

7. The provision for assisting *nursing*, giving *lectures and distributing information* with regard to health are likely also to be of great value on the public health.

8. With regard to administration, it is a great mistake to introduce yet *another health authority* into the county. The authority required should be constituted as an enlargement of the Public Health Committee, which already exists, of a County Council, with a large proportion of co-opted or nominated members from outside. This will work in the direction of unifying, simplifying, and strengthening local government, and so make the public health service effective. All proper provision should, of course, be made for the due representation of all concerned, and for delegation of work, under control of the County Council, of existing authorities, and officers.

These are mere sketches of certain points that are raised. I hope all readers of the GAZETTE will think deeply and read widely on the subject, studying principally the fountain head, that is, the actual provisions of the Bill and of the official memoranda issued on the subject.

I hope Guy's men past and present will take a lead in asserting the national value of this Bill and the determination of the profession to see it carried out on lines of efficiency rather than of mere professional justice.

REFERENCES.—The National Insurance Bill, price 8½d. Memorandum explanatory of the Bill, price 2d. Report of the Actuaries, price 4½d. Memorandum on Sickness and Invalidity Insurance in Germany, price 2d. Memorandum containing Opinions of Various Authorities in Germany, price 2d.

All to be obtained from Messrs. Grattan; or from Messrs. Eyre & Spottiswoode, Ltd., East Harding Street, E.C.

Dental News.

CONGRATULATIONS to Mr. W. S. Ollis on winning the prize of £5 for best "Paper" read before the Society, and also to Mr. H. L. Messenger on winning the Society's prize of £1 for best "Casual Communications." Both prizes were well merited. (Mr. Ollis' paper will appear in the GAZETTE shortly.)

A meeting of the Dental Society was held last Thursday, May 18th, at which the following officers were elected for the session 1911–12:—President, Mr. H. Chapman; Vice-Presidents, Mr. M. F. Hopson, Mr. L. Payne, Mr. E. B. Dowset, Mr. E. C. Hughes, Mr. H. P. Aubrey, Mr. H. C. Mallison; Secretary, Mr. W. S. Strannach; Committee, Messrs. Medlock, Hopson, Charles, Henderson; Dental Correspondent, Mr. W. R. Morris.

Mr. G. W. E. Holloway has attained phenominal success during the last few months. He has secured the Newland-Pedley prize, the prize in Second Year's General Subjects, and has now reached the height of all our ambitions—the Final L.D.S. of England. Good luck!

Dental Society.

Secretary's Report for Session 1910-11.

Mr. President and Gentlemen,—I have pleasure in presenting to you the Seventeenth Annual Report of the Dental Society.

Five ordinary meetings have been held, at which a like number of gentlemen have read papers of extraordinary brilliance. The standard has been considerably above the average, and those who have attended the meetings with any regularity cannot fail to have been highly edified.

A Clinical evening was arranged for March. This, at the last minute, had to be abandoned, as there was not a sufficient number of suitable cases in the hospital at the time. Much disappointment was caused, and, I fear, inconvenience to certain members of the Staff, who had kindly undertaken to assist in any way possible. To these gentlemen I desire to apologise, and particularly to Mr. J. Lewin Payne and Mr. Dowsett.

On February 11th the Sixteenth Annual Dinner was held at the Trocadero Restaurant; there were present on that occasion 195, equalling exactly the record created last year.

The financial side of the function was not quite so successful, but I am happy to be able to record that no actual loss was sustained, although the balance is distinctly less than last year. For various reasons the expenses of the dinner this year were much greater than they have ever been before, and the result shows that we were justified in raising the price of the tickets one shilling per head.

I should like to call your attention, gentlemen, to the fact that the pleasure of the dinner was very much marred by the collectors of autographs. Our visitors do not want to spend their time writing their names, besides which the entertainers are not given a fair chance of being heard. It is hoped that the practice will be stopped, and, therefore, not become an annual nuisance.

The prize of £5 for the best paper read before the Society this session has been awarded to Mr. W. S. Ollis, and that for the best Casual Communication (£1) to Mr. H. L. Messenger. The Committee congratulate these gentlemen. The Session has been a great success, and this I attribute entirely to the popularity of our President, who has not spared himself in his efforts to further the interests of the Society.

I should like to thank the President and Committee for all the help they have given me, both at meetings and in connection with the Dinner.

I desire especially to thank Mr. S. Wilson Charles and Mr. F. Bocquet Bull for all they have done to relieve me of much worry and anxiety.

Lastly, I wish the Society all possible success in the future, more even than has attended it up till now; I hope that all previous records will be shattered.

H. D. SHORE,
Hon. Sec. & Treas.

18th May, 1911.

Pass List.

Royal College of Surgeons of England.

May, 1911.

Final Examination for the Licence in Dental Surgery.

Parts I. and II.

*Charter, E. J. M.	*Orozco-Casorla, R.
*Holloway, G. W. E.	*Pritchard, G. B.

Part I. only.

Adams, R. R.	Langley, L. S.
Bacon, E. W.	Neale, C. D.
Bailey, E. R.	Neft, R.
Camp, A. F.	Richards, J. G.
Chapman, A. J.	Rodgers, R.
Elliott, H. G.	Ross, J. H.
Evans, J. E. Rhys.	Shore, H. D.
Farrington, R. G.	Tipper, F. J.
Huckett, E. S.	Wain, D.
King, R. M.	Wallis, F. R.

Part II. only.

*Benson, J.	*Ollis, W. S.
*Campion, R. B.	*Paul, F. W.
*Edey, F. H.	*Phillips, G. E. H. H.
*Edmonds, W. H.	*Spill, A. E. V.
*Marsh, A. P.	*Townshend, O. B.
*Matthews, G.	*Wiles, J. H.
*Messenger, H. L.	

FIRST PROFESSIONAL EXAMINATION.

Licence in Dental Surgery.

Mechanical Dentistry and Dental Metallurgy.

Achner, C. A.	Lawrence, F. W.
Adderley, W.	McFarlane, P. S.
Ballard, R. W.	Mash, O. N.
Boutwood, R.	Mayer, J. W.
Charles, G. F.	Moore, G. K.
Clarke, A. S.	Neely, W. G. S.
Cooper, T. P.	Palmer, J. S.
Crowe, A. A. R.	Patel, J. F.
Forrest, A. G.	Pearson, M.
Gaverick, Rae H.	Saul, E. R.
Haine, C. F.	Staley, R. C. W.
Hanreck, S.	Sutton, J. Spear.
Harkness, A. H.	

Mechanical Dentistry only.

*O'Kane, W. J.	*Salsbury, A. F.

Dental Metallurgy only.

Adams, S.	*Montgomery, L. T.
Easton, W. A.	Spong, R. W.
*Glover, C.	Windemer, L. D.

*Denotes completion of examination.

University of Cambridge.

The following degrees have been conferred:—

M.B.—H. L. Attwater, H. Chapple.

B.C.—H. L. Attwater.

Acute Salpingitis.

CLINICAL LECTURE BY Mr. J. H. TARGETT.

Gentlemen,—This subject was chosen because it occurred in a recent Conjoint Examination paper, and there seemed to be a misconception in the minds of many candidates as to the treatment of this disease. They regarded it as similar to acute appendicitis, and as needing the same operative treatment for its relief.

Though we have numerous opportunities of seeing the results of salpingitis in the Out-patient Department, yet cases in the acute stages are not brought there, and they are rarely seen in our gynæcological wards. A few cases are admitted into the medical wards with a provisional diagnosis of "peritonitis," but the great majority of cases are no doubt treated at their own homes, owing to the sudden onset of the disease and the comparatively mild character of the symptoms in many instances.

The causation of acute salpingitis is usually very definite, and this is a point of great importance in diagnosis. There are three common causes :—

a. *Sepsis* following an abortion, or a full-term labour; more rarely from infection due to a sloughing polypus of the uterus.

b. *Gonorrhœa*—a very frequent cause, perhaps 20–30 per cent. of all cases. American writers regard it as the most important of all causes.

c. *Tubercle*—representing about 10 per cent. of all cases.

Inflammation may now and then extend from the appendix to the right Fallopian tube, or from other lesions of the bowel to the pelvic organs. But for clinical purposes such causes may be disregarded in making a diagnosis of acute salpingitis.

We cannot spare much time to consider its morbid anatomy, but most of the results of salpingitis may be seen in the specimens arranged on the table, and they will be demonstrated at the close of the lecture. As the inflammation spreads from the uterus to the tubes it leads to closure of the abdominal ostia either by causing adhesions to adjacent parts or by causing recession of the fimbriæ with contraction of the ostium. The latter method is spoken of as "salpingitic closure of the tube," and is probably due to the less virulent forms of infection. As the mucosa of the ampullary portion of the tube becomes swollen, the fimbriæ of the ostium are retracted by slipping of the mucosa on the dilated muscular wall. The fimbriæ are eventually drawn inside, the ring of the ostium contracts down, and the end of the tube becomes closed and rounded. Subsequent distension will convert the inflamed tube into a hydrosalpinx or pyosalpinx.

In the more acute cases infection spreads rapidly along the tube, through the abdominal ostium, and sets up an adhesive inflammation of the surrounding peritoneum, and this is called "perimetric closure of the tube." In it the abdominal ostium becomes adherent to the broad ligament, bowel, uterus, or some portion of the pelvic wall.

One little point in the histology of acute tuberculous salpingitis may here be noted. There is the same swelling of the mucosa and its rugæ as in gonorrhœal or septic salpingitis, but the columnar epithelial covering of the mucosa is preserved even in an advanced stage of tuberculous infiltration, while in gonorrhœal salpingitis the epithelium is rapidly shed as in catarrhal inflammation of other parts.

Symptoms.—When infection has spread from the tubes to the adjacent peritoneum, it sets up a local peritonitis in the pelvic region which is called perimetritis. Until this happens there are no characteristic symptoms of salpingitis. Hence we may say that the symptoms of acute salpingitis are those of the peritonitis which it excites.

For the present purpose it will be best to confine our attention to cases unconnected with the puerperium. For when acute salpingitis follows closely upon a full-term labour the condition is part of a general "puerperal fever," and inasmuch as the uterus has not had time to complete its involution, it follows that the

Fallopian tubes are high up in the pelvis or even in the abdomen proper. Hence their distension gives rise to an abdominal rather than a pelvic swelling, and the diagnosis is consequently made upon a different plan.

The most typical cases are those which arise within a few weeks or months of marriage, and are due to uncured gonorrhœa in the husband. The patient is suddenly seized with severe abdominal pain, causing faintness or vomiting. The lower part of the abdomen becomes distended and rigid, and is very tender to touch. The pulse is rapid, and there is a variable amount of pyrexia. Vaginal examination is usually too painful at this stage to be carried out, but on enquiry there will be a history of vaginal discharge since marriage, and the severity of the symptoms will be generally proportionate to the virulence of this discharge.

After a few days' rest in bed with appropriate treatment, the swelling and tenderness of the abdomen will have subsided, and a vaginal examination then reveals certain important changes in the pelvic cavity. The Fallopian tubes, tender and swollen from inflammation, will have sunk to the bottom of Douglas's pouch, and by their increased weight drawn backwards the fundus uteri and the upper edges of the broad ligaments. The local peritonitis will have caused adhesions between the uterus with its appendages and the adjoining coils of intestine, great omentum, &c., and thus the pelvic cavity will have become shut off from the general cavity of the peritoneum. These anatomical changes are detected clinically in this way. The cervix is directed or pushed forwards, and pressure on it laterally or upwards causes much pain, which indicates adhesions and fixity of the body of the uterus. Behind the cervix, and filling up the bottom of Douglas's pouch, two tender swellings are felt, which can usually be distinguished as bilateral in attachment, though the swelling on one side may be much larger than on the other. These two swellings represent the inflamed tubes and ovaries, both of which have become swollen and œdematous, and are surrounded by inflammatory exudation. If the swelling on one side is of considerable size, the condition may be due to distension of the tube with serous fluid or pus, or to a collection of serous exudation between the peritoneal adhesions around the diseased organs. A common place to find this fluid is in the "ovarian fossa," behind the broad ligament and bounded by the tube above and the ovary below. Occasionally the ovary is the main cause of the swelling, owing to enlargement of one or more of the small follicular cysts so frequently present beneath the capsule of the organ. If the peritonitis is severe, the distension of Douglas's pouch may be chiefly due to serous exudation, or even to pus. The swelling is then excessively tender and bulges into the posterior fornix of the vagina. It is now called a perimetric abscess, or more generally a pelvic abscess.

Diagnosis.—There are three important conditions which must be borne in mind in making a diagnosis of acute salpingitis. They are (1) Appendicitis, (2) Tubal gestation, (3) Twisted ovarian cyst. Of these, appendicitis is the most important because of its frequency and the gravity of its symptoms, but we cannot here consider the matter in detail. Let it suffice to say that with a previous history of vaginal discharge and the presence of bilateral swellings in the bottom of the pelvic cavity as above described, a diagnosis of salpingitis is not likely to be wrong.

A case of twisted ovarian may simulate salpingitis in the suddenness of its onset, with acute abdominal pain, vomiting, pyrexia, and signs of local peritonitis in the lower part of the abdomen. But a tumour will be felt rising up from the pelvis, dull on percussion, and probably yielding a definite thrill. There is no vaginal discharge and no evidence of inflammation in the pouch of Douglas. Hence there is not much difficulty in distinguishing this condition from acute salpingitis.

The most interesting matter for us to discuss is the similarity between acute salpingitis and ruptured tubal gestation, and we will consider it in some detail.

In the following table I have placed the two conditions side by side and enumerated the leading symptoms and physical signs, thus:—

	Tubal gestation.	Acute salpingitis.
1. Sudden onset	Yes	Yes.
2. Acute abd. pain	Yes	Yes.
3. Pyrexia, rapid pulse	Yes	Yes.
4. Pelvic tumour	Unilateral	Bilateral.
5. Amenorrhœa	Always	Sometimes.
6. Breast signs	Yes	No.
7. Vaginal discharge	Brownish	Yellow.

It is obvious that the whole truth of a difficult clinical diagnosis cannot be conveyed in a bare table, such as this; but it will serve to emphasize the extraordinary similarity which sometimes obtains between the two diseases, and it will help to fix the attention on some of the more important points in the diagnosis. Let me remind you that the four classical or cardinal symptoms of tubal gestation are: amenorrhœa, sudden abdominal pain, vaginal discharge and pelvic tumour, and when any of these symptoms or signs are absent there is always a doubt in the diagnosis. As shown in the table, all of these may be present in a case of acute salpingitis in spite of the great differences in the morbid anatomy of the two diseases. The occasional occurrence of amenorrhœa in acute salpingitis is now well recognised, and we must suppose that the inflammatory swelling of the tube and ovary is the cause of the suppression of the menses. Remember it is only an occasional symptom, not generally present; but when it does occur the clinical picture is confused and the diagnosis and consequent treatment become uncertain. Next we will take the vaginal discharge. In tubal gestation this is of a characteristic brownish colour like menstrual discharge; it is not profuse in quantity but is persistent, and there are no signs of recent inflammation in the vagina. On the other hand, the original discharge in acute salpingitis is, or has been, profuse and of a purulent character, while the vulva is likely to show evidences of its infectious nature in redness and swelling of Bartholin's ducts, the orifice of the urethra, the interior of the vagina, and perhaps of the cervix uteri, if it can be examined. To this may be added the result of bacteriological examination of the discharge itself.

The differences between the pelvic swellings in the two conditions are important, but for reasons mentioned above the bimanual examination may be difficult to carry out. In a typical tubal mole with pelvic hæmotocele (which is the most common result of tubal gestation) the swelling is very definitely in one or other of the posterior quarters of the pelvic cavity, and it pushes the uterus forwards and to the opposite side. In favourable circumstances the body of the uterus can be felt in front of the mass. But acute salpingitis is a bilateral disease, for as the infection spreads from the uterine cavity there is no reason why one tube alone should be implicated. Consequently we expect to find swelling or thickening on both sides of the pelvis though the swelling on one side may be much larger than its fellow. Bear this distinction in mind, although in some cases it may be difficult to apply owing to great tenderness or rigidity on manipulation.

The general symptoms of pyrexia and rapid pulse need little explanation. In tubal gestation the pyrexia is usually slight and pulse-rate out of proportion to the temperature. In this condition the pyrexia can be attributed to the formation of plastic peritonitis around the effused blood, though some writers think it may be due to absorption of the blood itself. The rapid pulse would proceed from the internal hæmorrhage rather than from the degree of pyrexia. In salpingitis the pulse and temperature are both the result of acute peritonitis and will vary directly with the virulence of the infection. The abdomen is liable to be extremely tender from free hæmorrhage into the peritoneum, and with this there will be progressive distention of the bowels from inaction; thus the physical signs closely resemble those of pelvic peritonitis.

Two other important symptoms of tubal gestation must be mentioned here. The passage of a decidual cast is a conclusive proof of the existence of ectopic pregnancy, and obviously it will not occur in acute salpingitis. But as this symptom is only present in a small proportion of the cases at the time when the diagnosis has to be made, it is not of much assistance. The cast is frequently expelled a day or two *after* the operation, or it disintegrates and disappears in the vaginal discharge.

Another symptom is marked pallor in tubal gestation. A patient may faint at the sudden onset of acute salpingitis and perhaps show signs of collapse. But in the succeeding stages of the complaint the face will be flushed rather than pallid, with dry lips and tongue and the usual digestive disturbances.

The breast signs in tubal gestation rarely amount to much, but these glands should always be examined. What we expect to find in the average case is a drop of watery secretion on squeezing the nipple—no pigmentation and no enlargement. There would be no such watery discharge in acute salpingitis.

Treatment.—Our last subject is the question of treatment. I have emphasized the difficulties in the diagnosis of *certain* cases of acute salpingitis from tubal gestation. When that difficulty does occur it can only be solved by abdominal section, which would be the proper course to follow if the diagnosis of tubal gestation were assured. But I want specially to point out that laparotomy is *not* the appropriate treatment for acute salpingitis. It seems necessary to insist upon this statement because in the recent examination so many candidates appeared to regard acute salpingitis as comparable with acute appendicitis, demanding immediate operation.

The appendix cæci and Fallopian tube have some anatomical features in common, and when inflamed they are liable to cause suppuration. But there is no real analogy between the two diseases, and their morbid anatomy is strikingly different. In salpingitis the diseased organs sink to the bottom of Douglas's pouch and become shut off from the general peritoneal cavity by protective adhesions at the brim of the pelvis. Consequently diffuse peritonitis from acute salpingitis is very rare. The appendix cæci, on the other hand, has no such anatomical protection, and diffuse suppuration is therefore what might be expected. An even more important difference springs from the nature of the infection in the two diseases. The natural tendency of acute salpingitis is to subside; statistics have shown that over 80 per cent. of cases get well of their own accord. In mild gonorrhœal salpingitis the recovery may be so perfect that eventually the patient may become pregnant. It is true that appendicitis will also subside, but in most cases it is wise to operate afterwards to prevent recurrence of the inflammation.

There is no reason to fear gangrene and sloughing of the Fallopian tube, as in appendicitis; hence laparotomy for acute salpingitis is not only unnecessary but actually harmful, by disturbing protective adhesions and removing organs which will probably recover without it, and may also resume their functions.

In the rare cases where acute salpingitis causes a rapid purulent effusion into Douglas's pouch, the abscess is easily and effectually drained by an incision through the posterior fornix of the vagina, placing drainage tubes into the bottom of the pouch. Apart from any operative treatment, a case of acute salpingitis will be kept in bed with hot fomentations to the abdomen, and if she is not too tender, vaginal douches may be given of gradually increasing warmth. Morphia may be needed for the pain, and the diet must be limited to liquids. Aperients should be given by the mouth, and their action will be helped by glycerine or small oil enemata. But large injections into the rectum are best avoided, as they cause pain by pressure on the inflamed parts in front. The patient must remain in bed for at least a week after the temperature is normal, and the effect of getting up as to pain and fever must be carefully watched.

Papers by Guy's Men.

N. D. Bardswell, M.D., Medical Superintendent King Edward VII.'s Sanatorium, Midhurst, and another: Some Observations upon the Deep Temperature of the Human Body at Rest and after Muscular Exertion.—*British Medical Journal*, 13th May.

G. H. Savage, M.D. Lond., F.R.C.P. Lond., Consulting Physician to, and late Lecturer on Mental Diseases at Guy's Hospital: A Lecture on Mental Disorders and Suicide: delivered at the Medical Graduates' College and Polyclinic on May 9th, 1911.—*Lancet*, 20th May, 1911.

Alfred C. Jordan, M.D., Medical Radiographer to Guy's Hospital and to the Royal Hospital for Diseases of the Chest (with special plate): Duodenal Obstruction as shown by Radiography.—*British Medical Journal*, 20th May, 1911.

Guy's Hospital Past and Present Nurses' League.

THE Third Annual Dinner of the Guy's Hospital Nurses' League was held in the Nurses' Home on Friday, April 28th, 1911, at 7 p.m. Between 80 and 90 Past Members were present, among them being—Miss S. A. Swift, Vice-President; Miss Aitken, Supt. Ranyard Nurses; Miss Beard, Purley; Miss Bryan, Northampton; Miss Finnemore, Croydon; Mrs. Higgens, Winchester; Miss Hyland, Buxton; Miss Victoria Jones; Miss Jolley, Liverpool; Miss Lemon, Supt. Ranyard Nurses; Miss Lewin, Purley; Miss Newton, Ipswich; Miss O'Donnell, Watford; Miss O'Neil, Portsmouth; Miss Oxford; Miss Oyler, Gloucester; Mrs. Poolman; Miss E. Stevens, Chippenham; Miss Studdert, Hertford; Miss Taylor, Q.V.J.I.; Miss Timbrell, Lowestoft; Mrs. Tyson.

Many other members arrived in time for the Annual Meeting, for which Miss Swift took the chair at 8 p.m., in the Nurses' Recreation Room. The minutes of the last General Meeting were taken as read and signed.

The Matron then welcomed all members present, and as Hon. Sec. of the League read the report for the year. The League has now 1,040 members, and full advantage has been taken of the cottage and grounds at Honor Oak Park. A satisfactory account of the activity of the different sections of the League was given, with the exception of the Cycling Club, which has been disbanded. The Post-Graduate Course had been much appreciated, and arrangements would be made for another course in the autumn. Attention was called to the new rule of the Council relating to the admission of Vice-Presidents. The Viscountess Goschen, Miss Swift, and Mr. Cosmo Bonsor honoured the Nurses' League by accepting the invitation to become its first Vice-Presidents. On becoming President of the Hospital, Mr. Bonsor automatically retired from being Chairman of Council; the League now welcomed him as Vice-President, the present prosperity of its affairs being largely due to the kindly interest he always took in its welfare. The financial report presented by the Hon. Treasurer also proved most satisfactory, for the first time in the history of the League the current expenses were covered by the members' subscriptions. The grants, donations and honorary members' subscriptions were thus available towards paying off the debt on the grounds at Honor Oak Park.

Miss Swift received a very hearty welcome from all present, and explained how the League had grown out of the Nurses' Recreation Society. She said it was a source of great pleasure to her to know that the Nurses' League had become so strong; a thousand women trained at Guy's could not but move forward, and they were now in a position to help others. They must do something away from themselves, and think of those former members of the nursing staff who were now old and past work, and who through no fault of their own had fallen on evil times. They all knew how delightfully independent nurses were, but occasionally a nurse was unable to lay by sufficient for her old age, and she had been asked to call attention to the proposal that the League should undertake to support an old nurse in one of the King Edward Memorial Homes, shortly to be established. The success of the Nurses' League was, in addition to the untiring work of the Council and officers, due, in a large measure, to the unity of mind and labour of the members.

The following vote of thanks was then proposed by Miss Victoria Jones, seconded by Miss Oyler, and carried—"The members of the Guy's Hospital Past and Present Nurses' League tender their grateful thanks to the kind anonymous donor of the portrait of Miss Swift to the League. They accept it as a fitting tribute from one who appreciated Miss Swift's work and realised how ably she rendered her share of service to the community."

Votes of thanks were then passed to Mrs. Fagge, Hon. Treas.; Miss Haughton, Hon. Sec.; to the retiring Hon. Members of Council, Lady Fripp, Mrs. Hankey, and Mrs. Symonds; to the retiring representatives of the various sections, to Miss Smith, Secretary, and to Miss Swift for presiding.

Mrs. Fagge, Mrs. Lauriston Shaw, and Miss Ella Bonsor were elected Hon. Members of Council in place of those retiring by rotation.

After the meeting conversation became general, and present members entertained the visitors with songs and music.

The Seventh Annual Exhibition of the Nurses' Photographic Society also took place on the 28th. There were about 175 exhibits, and prizes were awarded as follows:—

Class A. Landscape, Seascape and River Scenery.—1st prize, Miss M. Smith; 2nd, Miss A. Phillips; 3rd, Miss Herrmann.

Class B. Portraiture, Figure Studies and Architecture.—1st prize, Nurse Todd; 2nd, Miss M. Smith.

Class C. Any subject not the entire work of Exhibitor.—1st prize, Mrs. Scott Dalgleish; 2nd, Miss F. Edmonds; 3rd, Miss M. Traill.

Special prize for best picture in Exhibition—Miss M. Smith.

Special prize for member working in Hospital—Sister Jentie Paterson.

The Countess of Bective, Mrs. Bonsor and Mrs. Trevelyan Martin again kindly placed prizes at the disposal of the judge, Mr. F. T. Hollyer, who criticised the photographs, and gave the exhibitors many useful hints for future work.

We congratulate Miss E. B. Harradine, Assis. Matron, on her appointment as Matron of the Royal South Hants Hospital at Southampton. Miss Harradine takes up her new work immediately, and will be succeeded in the Matron's Office by Miss Evelyn Densham, Sister Clinical, who has been appointed Assistant Matron.

L. V. H.

A Case of Chorion-Epithelioma Malignum with Unusual Symptoms.

BY R. DAVIES-COLLEY.

GERTRUDE J., æt. 27, was admitted into Queen Ward, under the care of Mr. Targett, on January 29th, 1911, for abdominal tumour.

History.—She had always enjoyed good health until January, 1909. She had been married in 1906, but had not become pregnant until the end of 1908, and in January, 1909, she miscarried as the result of a fall. The period of gestation was uncertain, as she had menstruated regularly up to the time of the miscarriage. The ovum did not appear to be abnormal in any way. The miscarriage was followed by a slight attack of "pelvic inflammation," which kept her in bed for a fortnight, after which she returned to her duties. For the next eighteen months she felt well, but had a slight flow of blood from the vagina every day, but no regular periods. In July, 1910, she took to her bed for a few days, on the advice of her doctor, and the hæmorrhage ceased. From that time until her admission to the hospital, six months later, no further period or show of blood occurred. When the hæmorrhage ceased, in July, she began to have sharp attacks of pain in the lower part of the abdomen and back, which recurred almost daily. In December, 1910, just a month before her admission, the pains grew much more severe, and she noticed a swelling in the lower part of the abdomen which seemed to be increasing rapidly in size; at the same time she began to lose weight rapidly and to feel very ill. Early in January she had a slight attack of pleurisy which cleared up in a few days, leaving no physical signs of disease in her chest. Micturition and defæcation were not affected at any time.

On admission she looked very ill, and was anæmic and emaciated. Pulse rapid, 138, and very weak. Respiration, 40 per minute. She became breathless on the slightest exertion. Examination of the chest showed no physical signs of disease. The abdomen was distended in its lower part by two smooth rounded tumours lying on either side of the middle line and in close contact with one another. The right-hand one reached to the level of the umbilicus and felt firm, but not hard like a fibroid. That on the left reached to the level of the iliac crest and was obviously cystic, suggesting the feel of a pregnant uterus. No free fluid could be demonstrated. Vaginally the cervix was found to be soft and to be displaced backwards, and appeared to be continuous with the soft abdominal tumour, which was therefore taken to be the uterus. The right-hand tumour bulged into the anterior fornix of the vagina, and was quite distinct from the other. The breasts were small, but the left contained secretion.

The diagnosis was obscure. It seemed certain that she was pregnant, and the tumour on the right was thought to be most probably a tense ovarian cyst with possibly torsion of its pedicle. The rapid pulse rate was difficult to explain, as her general condition did not seem to be bad enough to account for it.

On February 6th laparotomy was performed. The peritoneal cavity contained a slight excess of fluid. The tumours were found to be both ovarian in origin, and the uterus was lying behind them. The right broad ligament was much thickened by solid new growths. Double ovariotomy and pan-hysterectomy were performed, but it was found to be impossible to eradicate completely the growth on the right side. The liver was not noticed to be enlarged at the operation.

The patient recovered from the operation, but showed no improvement in her general condition. Her pulse rate never fell below 130, and was often as high as 160. Her temperature kept about normal. The cutaneous sutures were removed on February 16th, and it was then noticed that the liver margin was nearly down to the umbilicus.

On February 18th she began to have fits of coughing, which very much exhausted her. There were no physical signs, however, of disease in the lungs, and no sputum was brought up.

She gradually became weaker, and died on February 27th, twenty-one days after the operation.

Pathology of the parts removed at the operation: the uterus was enlarged to about twice its normal size and distorted by masses of hæmorrhagic growth in its walls. The cavity was empty and small, and the mucous-membrane was healthy.

The right ovarian tumour was the size of a cocoanut, dark red in colour both on the surface and on section, and solid throughout. The tube and broad ligament on this side were infiltrated by the same solid growth.

Sections from various parts of the growth all showed the typical characteristics of chorion-epithelioma, composed of masses of syncitium and Langham's cells in about equal proportion, and very necrotic in most places.

The left ovarian tumour was a multilocular cyst, the cavities of which were all small, none of them exceeding an inch in diameter. Their lining membranes were slightly yellow in colour, and could be easily detached from their surrounding capsules. On section, they were found to be composed entirely of lutein cells.

The post-mortem examination showed multiple secondary deposits of similar hæmorrhagic, solid growth in the lungs, liver, and thyroid glands, and behind the primary mass in the right side of the pelvis.

Chorion-epithelioma is no longer in itself a disease of extreme rarity, but this case presents several unusual features. The association with a first pregnancy is very uncommon, the pregnancy as a rule rising *pari passu* with the degree of fertility. Teacher (1) gives 4·77 per cent. of all cases as occuring with a first pregnancy.

The suppression of the menstrual flow during the last six months of her life is difficult to explain, and I cannot find any record of a similar case in the literature. Possibly the complete destruction of the right ovary, and the formation of lutein cysts in the left ovary, have been the cause. The uterine mucous membrane was unaffected, and so the usual source of hæmorrhage, *i.e.*, ulceration of the growth into the uterine cavity, was absent.

The long period that elapsed between the termination of the pregnancy and the onset of definite symptoms, has been exceeded on a few occasions, but it is very unusual, and it must be supposed that in these cases the growth remains for a time in a dormant state, before acquiring actively malignant characters.

The occurrence of lutein cysts in association with both chorion-epithelioma and with hydatidiform mole is well known, but is still unexplained. There is, without doubt, a close relationship between the formation of lutein cells and the growth of the epiblastic elements of the placenta in a normal pregnancy, but whether one bears a causal relationship to the other, or whether both are the result of a common cause is still in doubt.

The rapid pulse rate cannot be explained by the mere presence of the tumour in the body, though it is possible that the tumour cells produce a toxæmia which may be partly responsible. Dr. Ivens (2) recently reported a case showing marked nervous symptoms attributed to this cause.

In the present case a more probable explanation is the presence of a secondary deposit of growth in the thyroid gland.

REFERENCES.—(1) Teacher, Journ. of Obst. and Gyn. 1903. (2) Ivens, *Ibid.*, 1911.

Guy's Hospital Ladies' Association.

THE sixteenth annual general meeting of Guy's Hospital Ladies' Association was held in the Court Room on Tuesday, May 23rd, at 3.30. In the unavoidable absence of Lady Goschen, who was to have taken the chair, the Hon. Mrs. Merry presided, and a large number of members attended, amongst them being Mrs. Benyon, Mrs. Cosmo Bonsor, Mrs. Trevelyan Martin, Mrs. Francis Lucas, the Hon. Mrs. Henry Molyneux, Mrs. Pye-Smith, Mrs. Hale White, Mrs. Lane, Mrs. Symonds, and Lady Perry.

Miss Haughton (the Matron) moved the adoption of the annual statement of accounts, which was of a very satisfactory nature.

All the eight beds in Victoria ward are for the first time to be supported by the Ladies' Association's donation of £400. In addition, £50 was voted from the junior members for the upkeep of two cots.

Mrs. Benyon moved the adoption of the report, which shows steady increase in every direction. The main support of the Association, the twenty local branches, are still working and adding to their membership. The total number of members is now over 1,500, and they supply more than 2,000 garments each year for ward use and also for convalescent patients. Mrs. Mason spoke of the help which may be given by the Association's visitors to patients on their discharge, and gave some interesting details of her work as a visitor in Martha ward.

The officers of the society were re-elected for a further term of three years, and Lady Goschen and Mrs. Newton Pitt were chosen to succeed the Countess of Kerry and Mrs. Charters Symonds on the Committee. Mrs. Merry referred to the excellent work done by the local secretaries, and appealed to members to make known the aims of the Association among their friends, so that additional support might be secured.

After the meeting tea was served. All the garments contributed during the year were displayed, and small parties of members were conducted round the Hospital by some of the Sisters, who kindly volunteered to perform this service.

The Residents' Smoking Concert.

A Smoking Concert was held in the College Dining Room, on Wednesday, May 17th, and was a great success. A number of artistes kindly gave their services, and the Secretary, Mr. H. Gardiner, is to be congratulated on the excellent entertainment which he organised. Mr. Stewart was a very popular chairman, and opened the proceedings by calling on Mr. Eccles, who responded with a song which successfully put his audience into a merry mood. Mr. Butcher followed with "Sweet Kitty Clover," and a parodied version of the "Wreck of the Hesperus," aboard which unfortunate barque, the village blacksmith (to say nothing of "the noble six hundred") was dragged willy-nilly, with in addition as we were told a "dirty night" ahead. Mr. Butcher's fine tenor voice was much admired, and later on he gave a most artistic rendering of "Sally in Our Alley." Mr. Capper, whose whistling is well known and appreciated at Guy's, charmed his audience. If only we were all gifted as is Mr. Capper, some of the things we now whistle for in vain might become more possible of attainment! Mr. Irvine gave two of Stanford's well-known songs with excellent effect, and we never remember hearing him to better advantage. Mr. Cock made a welcome appearance as a "lightening artist." His sketch of Mr. Symonds was particularly happy, but we wish a little more time had been given for an appreciation of his drawings. Dr. Byrd Page — ! ! ! Words fail for Dr. Page (although he himself is remarkably fluent) but his illusions become more remarkable each time one sees them, and if we *had* an enemy; well, we wish he might play poker with Dr. Byrd Page! Mr. Elliot Makeham was charming in "Nini, Ninette, Ninon," and later sang some very clever and amusing duets, with Mr. Crawford, who was also their composer. Mr. Endean, whom we were pleased to welcome on a Guy's platform again, gave some old favourites, but Mr. Endean is so well known that we need only say he was as good as usual. Mr. Crawford sang at the piano, and followed with some Scotch stories. which we have already added to our own "original" repertoire.

Mr. Saner appropriately expressed the company's thanks to the artistes who had so kindly performed, and so closed a thoroughly enjoyable evening;—though for *some* there was still the morning after!

Change of Address.

Astley V. Clarke, M.D., from 37, London Road, to Lansdowne House, 19. Victoria Road, Leicester.

A. Douglas Crofts, M.R.C.S., L.R.C.P., from 26, King's Road, to 9, High Street, Windsor. Telephone 334.

P. Seymour Price, M.R.C.S., L.R.C.P., from 9, Grosvenor Gardens, to 57, Sloane Gardens, S.W.

A. Chaning Pearce, M.D., from Wokingham, Berks, to Penticton, British Columbia.

J. F. Young, M.B., B.S., from Johannesburg, to Rustemburg, Transvaal.

Notice.

Charles Murchison Scholarship in Clinical Medicine.

The next Examination for this Scholarship will be held in the University of Edinburgh, on Wednesday and Thursday, the 14th and 15th June, 1911.

The competition is open to any student of Medicine who, subsequently to the date of passing his Professional Examination in Anatomy and Physiology for a Medical Qualification, has studied for a period of not less than two-and-a-half and not more than five years at a Medical School in London, recognised by the Royal College of Physicians, or at the University of Edinburgh, including Medical classes recognised by the Medical Faculty of the University, whether holding a Medical Qualification or not.

The Scholarship is of the value of Twenty Guineas, and is tenable for one year.

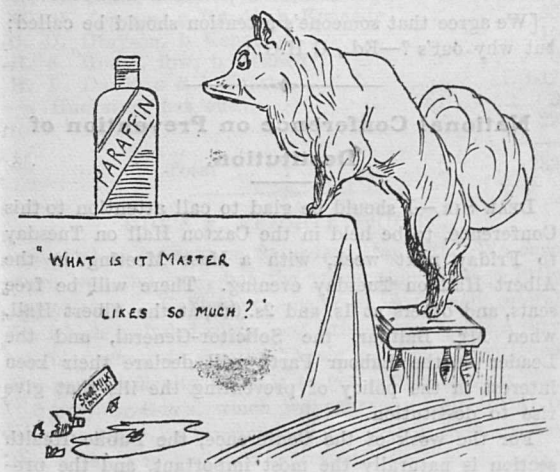
The Examination will be conducted both orally and in writing, and the following arrangements will be adopted: Wednesday, 14th June—10 a.m. to 1 p.m.—Examination of Patients in the Royal Infirmary; 2 to 4 p.m.—Writing of Commentaries on the Cases of the Patients. Thursday, 15th June—10 a.m. to 1 p.m.—Written Examination in the Court Room, University; the Questions to embrace Pathology and Therapeutics; 4.30 p.m.—Examination on Specimens.

Intending Candidates are required to send in their names, with evidence of their qualification to compete, to the Dean of the Faculty of Medicine, University New Buildings, Edinburgh, not later than the 3rd of June.

(The Examination for 1912 will be held in the Royal College of Physicians of London.)

HARVEY LITTLEJOHN,
Dean of the Faculty of Medicine.

University of Edinburgh,
May, 1911.



Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

Golf.

DEAR SIR,--Seeing the paragraph *re* Staff v. Students Golf Match, in the last issue of the GAZETTE, it occurred to me that a match might be arranged between Guy's men past and present. The latter, of course, to include golfing members of the Staff.

I have no doubt I could obtain permission from the committee of my own club (Ilford) to play on their course.

I would suggest beginning either about 11 a.m. or 1.30 p.m. Singles first and foursomes after. The journey from Liverpool Street to Ilford only takes about a quarter of an hour.

Should this suggestion find favour with present Guy's men I should be very glad to arrange matters, and I would like to hear from any old Guy's men who would care to play.

I would ask such to send me their club handicaps, so that level matches might be arranged where possible.—Yours faithfully,

J. RENELL ATKINSON.

Chadwell Heath, Essex.
May 13th, 1911.

Wills Library.

SIR,—After spending many weary hours in the Wills Library I feel I must call the attention of someone to the state of the chairs there. The stuffing of those chairs has evidently done good work in the past, but is now quite unable to cope with the situation, and leaves the unfortunate student to do his best with an unsympathetic wooden rim.

By giving publicity to this complaint, Sir, you will earn the sincere thanks of,

A THIN SUBJECT.

[*We agree that someone's attention should be called;* but why our's ?—Ed., G.H.G.]

National Conference on Prevention of Destitution.

DEAR SIR,—I should be glad to call attention to this Conference, to be held in the Caxton Hall on Tuesday to Friday next week, with a Mass Meeting in the Albert Hall on Tuesday evening. There will be free seats, and others at 1s. and 2s. 6d., at the Albert Hall, when Mr. Balfour, the Solicitor-General, and the Leader of the Labour Party will declare their keen interest in the policy of preventing the ills that give rise to destitution.

For the work of the Conference, the Public Health section is naturally the most important, and the programme takes a comprehensive view of the effect of medical work on national progress, providing discussion on seven main groups of subjects. The National Insurance Scheme will, for the first time, be discussed in public, and Dr. Shaw is reading a paper on the Relation of the Medical Practitioner to the Medical Treatment of School Children.

It is to be hoped that every Guy's man who is able will attend the Albert Hall Meeting and such meetings of the Conference as he can.—Yours truly,

F. E. FREMANTLE.

Appointments.

Naval and Military.

Royal Naval Medical Service.—The undermentioned Surgeons have been promoted to the rank of Staff Surgeon in His Majesty's Fleet: C. H. Dawe, A. W. Iredell, F. C. Robinson; dated 16th May, 1911.

Captain G. E. Malcomson, M.D., I.M.S., is appointed Specialist in the Prevention of Disease, and to the charge of the Brigade Laboratory, Nowshera, from January 13th.

Civil.

C. E. Carpmael, M.B., B.S., is appointed District Medical Officer, Camberwell Union.

H. J. Starling, M.D. Lond., D.P.H. Camb., is appointed Honorary Anæsthetist to the Norfolk and Norwich Hospital.

From the Gazette's Special Pathologist.

A. E. L., BUCKINGHAM.—Reaction, markedly acid; specific gravity, 1025; Albumen, a considerable amount; blood, vide infra; sugar, absent. *Microscopical examination of the centrifugalised deposit:*—The deposit is small in amount and consists almost entirely of blood with the proportionate number of leucocytes, a few crystals of uric acid, and some squamous epithelial cells from the lower genito-urinary tract. Tube casts, pus, renal cells, cells indicative of new growth formation, or further urinary abnormalities are not detected.

C. E. M. J., ALTON.—This gland is tuberculous. It is infiltrated with masses of epithelioid cells and occasional giant cells, with commencing caseation in places.

A. E. L., BUCKINGHAM.—This is a tuberculous liver. It is much congested, shows fatty changes in the liver cells, and presents numbers of miliary tubercles in Glisson's capsule. These have the usual structure of giant cells, epithelioid cells, and lymphoid cells. It is not a cirrhotic liver.

PATHOLOGIST.

Sport.

Cricket.

GUY'S v. H. A. C.

Played at Finsbury on Wednesday, May 10th. Guy's won the toss and batted first. Kennedy was the only one to do anything, making some fine drives in a good innings of 40. Zamorra took 5 wickets for 72.

GUY'S.

A. C. Hancock, c & b Douglas	15
G. Dinan, run out	8
A. M. Zamorra, c Shields, b Douglas	0
G. W. M. Andrew, b Bonser	9
M. Scott, c Shields, b Douglas	10
R. S. Kennedy, b Bonser	40
G. Gripper, c & b Douglas	0
J. T. T. Forbes, b Bonser	1
H. N. Purdom, not out	16
E. J. Rhys-Evans, c Watts, b Gill	3
Sub., b Gill	0
Extras	12
Total	114

H. A. C.

H. J. Sharpe, c Sub, b Kennedy	39
A. R. Shields, b Zamorra	32
E. A. Pearce, b Zamorra	19
L. N. Morris, b Zamorra	25
J. D. H. Watts, c Purdom, b Rhys-Evans	24
L. Leuw, lbw, b Zamorra	8
C. H. Douglas, c Scott, b Hancock	40
J. H. Chick, b Zamorra	0
H. J. Bonser, not out	11
A. W. Mills, not out	75
R. G. Gill, b Andrew	17
Extras	8
Total (for 9 wickets)	298

GUY'S v. SEVENOAKS.

Played at Sevenoaks on Saturday, May 13th. Guy's again won the toss, and batted first. The only real bright spot in our batting was Kennedy, who beat up a good 65, once or twice nearly costing the home club money for balls. Scott was the only other man to reach double figures.

GUY'S.

G. W. M. Andrew, lbw, b Sillis	7
A. C. Hancock, run out	1
R. S. Kennedy, c Smith, b Bull	65
A. F. Rook, c Richardson, b Grayley	5
F. C. Hunôt, c Brookes, b Sillis	2
M. Scott, lbw, b Bickmore	18
F. Kahlenberg, st Brookes, b Bickmore	3
H. N. Purdom, c Sillis, b Lovett	5
C. Warner, b Grayley	4
E. J. Rhys-Evans, b Grayley	6
J. T. T. Forbes, not out	1
Extras	7
Total	124

SEVENOAKS.

J. S. Richardson, b Forbes	70
J. D. Adamson, b Kennedy	11
W. Bull, b Kennedy	12
F. C. Lovett, b Kennedy	0
R. B. Brookes, st Scott, b Rook	39
R. Slater, b Rook	7
J. Grayley, not out	22
T. Sillis, c Rhys-Evans, b Rook	0
R. Smith, b Rhys-Evans	6
E. L. Elliott, c Scott, b Rhys-Evans	7
T. Bickmore, c Forbes, b Rhys-Evans	0
Extras	18
Total	192

GUY'S v. HAMPSTEAD.

Played at Honor Oak Park on Wednesday, May 17th. Again we won the toss, again a small total, and yet again beaten. Hancock was unfortunately run out when looking like making runs. Kahlenberg and Kennedy bowled quite well, the former not having all the luck he deserevd.

GUY'S.

A. C. Hancock, run out	22
H. N. Purdom, b Everitt	0
R. S. Kennedy, b Bajana	1
R. M. Veale, c Huckstep, b Bajana	12
G. W. M. Andrew, c McClure, b Huckstep	13
F. C. Hunôt, c Bajana, b Huckstep	0
M. Scott, b Davis	5
G. Dinan, c Everitt, b Davis	0
F. Kahlenberg, c Bajana, b Davis	4
E. J. Rhys-Evans, not out	9
J. T. T. Forbes, lbw, b Davis	5
Extras	21
Total	92

HAMPSTEAD.

H. S. McClure, b Kennedy	15
G. M. Hodgson, c Forbes, b Kennedy	12
M. P. Bajana, b Kahlenberg	10
R. S. Everitt, st Scott, b Kahlenberg	10
G. Fermiloe, c Forbes, b Kahlenberg	79
W. S. Flale, c Scott, b Kahlenberg	23
W. H. Ingram, c Hunôt, b Kennedy	36
C. D. Drayson, b Kennedy	10
H. S. Horne, lbw, b Kennedy	0
H. P. Davis, c & b Scott	12
—. Huckstep, not out	3
Extras	22
Total	232

GUY'S v. REIGATE PRIORY.

Played at Reigate on Saturday, May 20th. We once more won the ——, but the whole thing gets a little monotonous. Kahlenberg made an extremely useful 58, which included some good drives, and found a very useful partner in Smith. Again might be mentioned the great difficulty there is to get people to turn out.

Surely in Guy's, which we can say, with truth, is renowned for its greatness in the sports field, is not this a thing to be much regretted?

GUY'S.

R. S. Kennedy, b Budgen	0
H. N. Purdom, b Budgen	10
A. M. Zamorra, lbw, b Budgen	5
F. C. Hunôt, b Budgen	1
M. Scott, c Webb, b Barrett	5
P. Smith, c Budgen, b Webb	17
F. Kahlenberg, b Field	58
—. Harris, b Budgen	9
G. W. M. Andrew, c & b Budgen	7
J. T. T. Forbes, not out	0
C. L. Cole, b Budgen	0
Extras	5
Total	117

REIGATE PRIORY.

F. Nightingale, c Smith, b Forbes	41
H. Budgen, c Sub, b Kahlenberg	37
C. K. Field, b Forbes	38
T. Nightingale, b Andrew	8
A. H. Padgham, c Kahlenberg, b Hunôt	37
Capt. L. Cook, b Andrew	7
C. E. Roberts, run out	5
Rev. D. J. Watham, c Kennedy, b Zamorra	23
J. Barrett, not out	33
A. Webb, not out	4
G. Scrivens, b Andrew	1
Extras	27
Total (for 9 wickets)	261

Lawn Tennis.

GUY'S 1ST VI. v. BURHILL.

1ST ROUND SURREY SENIOR CUP.

This match took place at Burhill on Wednesday, May 17th, and resulted in a win for the Hospital by six matches to three. Score :—

A. S. Roe and W. R. Reynell beat J. M. Hill and J. G. Pleydell Nott, 6–3, 6–3; beat B. O. Clarke and P. D. Hickman, 6–0, 8–6; beat A. S. Ward and A. J. Millard, 6–0, 6–3.

R. Curle and L. A. Graham beat Clarke and Hickman, 6–2, 6–3; lost to Hill and Nott, 4–6, 3–6; beat Ward and Millard, 7–5, 8–6.

H. Sharpe and R. H. Lucas beat Ward and Millard, 6–2, 6–1; lost to Clarke and Hickman, 3–6, 4–6; lost to Hill and Nott, 2–6, 6–2, 1–6.

GUY'S 2ND VI. v. SANDERSTEAD.

1ST ROUND SURREY JUNIOR CUP.

This match took place at Honor Oak Park on Saturday, May 13th, and resulted in a win for us by five matches to three. Score :—

G. C. Covell and R. H. Lucas beat Deverell and Brown, 6–3, 6–2; lost to Oram and Roper, 5–7, 6–4, 5–7; drew with Lyle and Vine, 9–7, 3–5.

H. L. S. Griffiths and H. S. Groves beat Oram and Roper, 6–3, 8–6; lost to Deverell and Brown, 3–6, 4–6; beat Lyle and Vine, 3–6, 6–2, 6–4.

N. Garrard and P. Totton beat Lyle and Vine, 2–6, 6–1, 6–3; beat Oram and Roper, 7–5, 6–4; lost to Deverell and Brown, 2–6, 6–3, 1–6.

GUY'S 1ST VI. v. SURBITON.

This match was played at Honor Oak Park on Saturday, May 20th, and resulted in a win for the visitors by five matches to four. W. R. Reynell was unfortunately unable to turn out for us. Score :—

A. S. Roe and A. Zorab lost to H. S. Bullock and J. S. Bell, 3–6, 4–6; beat N. C. Carver and C. Edwards, 7–5, 5–7, 6–1; beat H. G. Kenyon and C. H. C. Noad, 6–3, 6–4.

H. Sharpe and L. A. Graham lost to Carver and Edwards, 4–6, 6–2, 3–6; beat Kenyon and Noad, 6–2, 6–4; lost to Bullock and Bell, 3–6, 4–6.

R. Curle and R. H. Lucas beat Kenyon and Noad, 6–4, 6–2; lost to Bullock and Bell, 1–6, 0–6; lost to Carver and Edwards, 6–4, 5–7, 2–6.

GUY'S 2ND VI. v. WOKING.

Played at Woking on Saturday, May 20th, when the 2nd VI. won by seven matches to two. Score :—

G. C. Covell and P. Totton beat C. B. Gabriel and J. M. Henderson, 6–0, 6–2; lost to R. S. Lewis and R. L. Wynne, 4–6, 6–2, 4–6; beat H. Davies-Colley and P. Cox, 6–1, 6–3.

H. S. Groves and H. L. S. Griffiths beat Gabriel and Henderson, 6–1, 4–6, 6–4; beat Colley and Cox, 6–0, 9–7; lost to Lewis and Wynne, 6–8, 7–5, 5–7.

N. Garrard and R. Farrington beat Colley and Cox, 7–5, 6–4; beat Lewis and Wynne, 6–3, 7–5; beat Gabriel and Henderson, 6–8, 6–2, 7–5.

Golf.

A match "Surgeons v. Physicians" was played at Northwood on Wednesday, 24th, resulting in a medical victory.

SINGLES.

Dr. Pitt	0	Mr. Townrow	1
Dr. Fawcett	0	F. Kahlenberg	1
Dr. Cameron	1	J. G. Saner	0
G. H. Hunt	1	Mr. Mollison	0
F. D. Saner	1	Mr. Davies-Colley	0
	3		2

FOURSOMES.

Dr. Pitt & G. H. Hunt	1	Mr. Fagge & J. G. Saner	0
Dr. Fawcett & F. D. Saner	1	Mr. Davies-Colley & Mr. Townrow	0
Dr. Cameron	1	Mr. Mollison & F. Kahlenberg	0
	3		0

Birth.

REYNOLDS.—On April 26th, at Rosendale Lodge, 17, Streatham Hill, S.W., the wife of Russell J. Reynolds, M.B., B.S. (Lond.), L.R.C.P., M.R.C.S. (*née* Römer), of a son.

Marriage.

HEEGAARD WARNER—REINHARDT.—On Wednesday, April 12th, Reginald George Heegaard Warner, L.D.S. (Eng.), eldest son of the late G. H. Warner, L.D.S., of Ramsgate, Kent, to Kathleen Reinhardt, eldest daughter of the late James Hastey Reinhardt, L.D.S., of Herne Hill, and Harley Street, W.

Death.

BEATSON, W. B.—On April 26th, at Eastbourne, William Burns Beatson, M.D., F.R.C.S., late I.M.S., in his 87th year.

Ed.—E. G. S., pp. A. N. C.

GUY'S HOSPITAL GAZETTE.

VOL. XXV., No. 599.] JUNE 10, 1911. [SIXPENCE.

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Passim.

AT a Mass Meeting of the Medical Profession, held at the Connaught Rooms, on June 1st, the following resolution in reference to the National Insurance Bill was passed unanimously:—

"That, while approving the main objects of the National Insurance Bill, and being desirous of co-operating for their attainment, in view of the fact that the present proposals of the Government are unsatisfactory, it is the opinion of this meeting that the Government should be asked to delay dealing with the proposed medical benefits until satisfactory terms have been arranged with the medical profession."

Further, the following terms were to be placed before the Chancellor of the Exchequer as those on which the medical profession would accept service under the Bill:—

1. An income limit of £2 a week for those entitled to medical benefit.

2. Free choice of the doctor by the patient, subject only to the consent of the doctor to attend him.

3. Medical and maternity benefits to be administered by Local Health Committees, and not in any respect by Friendly Societies.

4. The method of remuneration of medical practitioners adopted by each Local Health Committee to be according to the preference of the majority of the medical profession of the district of that committee.

5. Medical remuneration to be what the profession considers adequate, having due regard to the duties to be performed, and other conditions of service.

6. Adequate medical representation among the Insurance Commissioners, in the Central Advisory Committee, and in the Local Health Committees; and statutory recognition of a Local Medical Committee representative of the profession in the district of each Health Committee.

THE only way for the profession to obtain that efficiency of service, under the Bill, which it desires, is by an absolute unanimity. Consequently we would urge all Guy's men, past and present, to support the resolution, and to pass over those minor differences of opinion which are bound to exist, and are usually capable of adjustment. We would repeat that the general principles of the Bill, of which the British Medical Association avows itself a supporter, are a great advance in our civilisation, and as such, should receive support from all sides. It is a mistake to let objections to certain clauses of the Bill arouse antagonism to the measure as a whole, and we feel sure that the resolution quoted above, while satisfying in the main the grievances felt by practitioners, is not sufficiently drastic to affect the safe passage of the Bill through the House of Commons.

WE note with interest that applications are invited for three demonstratorships of physiology, instead of two, as hitherto. Whether this is a recognition of the large place which physiology has of recent years taken in the advance of medicine, or whether it is purely the result of a progressive growth in the physiological department, we cannot say; but whichever it is, it is

a heartily welcome innovation. We trust sincerely that in filling this new appointment the authorities will not confine their choice to those whose interests are primarily medical, but will remember that physiology is a science whose affections should be equally divided between medicine and surgery, although, so far, the former has been given a decided preference. There is at the present time every indication of the growth of a scientific surgery, following on the lines laid down by Crile, Carrell, and others, whose basis shall be a sound physiology instead of a mere reiteration of empirical facts. We feel sure that a large amount of valuable work might be done by a man of surgical bent working in the physiological department, while a sound physiology could not but be a help in the scientific study of surgery.

IN our correspondence columns will be found a letter, complaining of the lack of enthusiasm among cricketers at the Hospital. We fear the trouble is wider than the cricket field. In every class of people, be it cricketers or contributors, or even worse, the general public, we are speedily opposed to that dead wall of apathy, which bars the road to any hope of progress. We confess to a sincere admiration of enthusiasm of any kind, constructive or destructive, and condemn strongly that attitude, which, while pretending to a judicial impartiality, is in reality but a cloak for incompetence. There is a tradition that the Englishman should prevent his emotions from appearing on the surface, and this, admirable in itself, has in many cases led to a condition of stagnation.

IN the Hospital, in particular, this lack of enthusiasm is especially noticeable. Keenness on games is misnamed slacking, while keenness on work is called sycophancy. The practical enthusiast is a faddist, the theoretical a fanatic, while the impassive inactive drone arrogates to himself the adjectives 'moderate' and 'sensible.' That many will totally disagree with these views we are fully aware, and we only trust that they may be drawn into an activity as desirable as it will be unexpected. It has been said that he who thinks before he speaks says few foolish things and no wise ones, to which we may well add, that he who thinks long before he acts, very seldom acts at all.

TEACHING is, like the weather and the Government, a legitimate object of continual complaint. The authorities, as shown by the institution and continuance of compulsory lectures, are of opinion that you can take a horse to the water, although you may not be able to make him drink. Much might, however, be done by supplying drinkable water. In this particular instance the subject of our criticism is the almost total absence of any teaching on medical treatment. Medical teaching is divided, or should be, between the physicians and the registrars. The registrars do not teach treatment because they are not supposed to, and the physicians do not do so either. The result is that a man going up for examination, or a man leaving the hospital without doing appointments, is left, as far as any knowledge of treatment is concerned, to the mercies of the text-books. Text-book writers have a habit of inserting drugs like commas in their context, and the resultant benefit to the reader is almost as small as if they were omitted altogether.

As to the remedy for this state of things, the obvious one is that somebody should teach treatment. This is a subject in which actual practical experience is particularly valuable, and consequently teaching by the physicians would probably be of far greater value than if done by registrars. We hear rumours that a regular "clinique thérapeutique" is to be instituted, at which the treatment of certain selected medical cases will be discussed. If this is so, we can promise a large attendance of men, because, contrary perhaps to general ideas, the average student is only too pleased to avail himself of any teaching that is likely to be of value to him. It is true that treatment is often fully discussed in clinical lectures, but here it is rather the treatment of a disease, than of a patient, and it is in the treatment of a patient that teaching is at present so inadequate.

DIAGNOSIS and pathology are, we know, the foundations of all treatment. In realizing this important fact we are rather apt to forget, while at the hospital, that what a patient wants to know is not what he has got, but how to get rid of it. Theory is an excellent mother to practice, but not always a good nurse, and, unfortunately, medicine has not yet reached the stage where the empirical facts of clinical experience can be ignored for the logical results of physiological reasoning. Consequently a proper knowledge of treatment, which experience shows to have the best results, is still a necessity, and it is for an adequate teaching of this subject in particular, as well as of medical treatment in general, that we are asking.

WE are asked to draw attention to the fact, announced elsewhere in our columns, that the Athletic Sports take place on June 17th. Every effort is to be made to secure as large an entry as possible, and some good races are certain to result. It is to be hoped that there will be a large attendance to witness the sports, and to encourage keenness in the competitors.

A PATIENT recently in hospital remarked to the Sister that she was very worried about her youngest son, who, she asserted, "'ad tubes all over 'im." On questioning it appeared that a tracheotomy for diphtheria had been performed. The patient remarked, "There's a tube you can see in 'is neck; but its a lot worse than that, as the doctor says that 'e's got the tube-ercles all over him now!"

As announced in our last issue, Miss Densham has been appointed Assistant Matron, and so leaves Clinical, where for three years she has been such an efficient Sister. On leaving she was presented, by the clinicals past and present, who have worked with her, with a silver rose-bowl and a pair of vases, as an appreciation of the excellent and sympathetic way in which she had carried out her duties. We wish her that success in her new appointment which she achieved in her old one.

WE have received a letter from Mr. Targett, asking us to express, through the GAZETTE, his thanks for kind enquiries and sympathy received from numerous past and present Guy's men. Mr. Targett is progressing favourably, but has, unfortunately, to undergo a second operation for closure of the appendicular wound. That he will soon be completely recovered and able to resume work amongst us, is, we know, the sincere wish of all who have known him at Guy's and elsewhere.

List of Books

Received in the Wills Library since 1st February, 1911.

BY PURCHASE.

Colyer's Dental Surgery and Pathology, 1910.
Bland-Sutton & Giles' Diseases of Women. Sixth Edition.
Williams' Obstetrics.
Lockwood's Aseptic Surgery.
Ballance's Surgery of the Brain.
Tilley's Diseases of the Nose and Throat.
Green's Pathology, 1911.
Laing Gordon's Life of Sir J. Simpson.
Stephen Paget's Life of John Hunter.
D'Arcy Power's Life of William Harvey.
J. F. Payne, Life of Thos. Sydenham.
T. Holmes, Life of Sir Benjamin Brodie.
M. Foster's Life of Claude Bernard.
Sir W. Stokes' Life of William Stokes.
J. G. Kendrick, Life of Hermann von Helmholtz.
*Sequeira's Diseases of the Skin.
*Collected Papers by the Staff of S. Mary's Hospital Mayo Clinic, Rochester, U. S. America.
*Ergebnisse der Inneren Medizin und Kinderheilkunde. Vols. I. to VI. (and to be continued).

* For Davies-Colley Memorial.

PRESENTED.

Hertz's Constipation and Allied Diseases. By Dr. A. F. Hertz.
Bradshaw Lecture, 1910: Results of Bronchial Obstruction. By Dr. G. Newton Pitt.
Some of the Tribal Marks of the South African Native Races. By Dr. G. A. Turner, Medical Officer, Witwatersrand Native Labour Association. Per Dr. Geo. Turner, Senior.
Collected Papers from the Guy's Hospital Physiological Laboratory, 1909–10. Per Dr. M. S. Pembrey.
Journal of Physiology, Vol. xlii., Parts I., II., III., and IV. By Dr. A. F. Hertz.
Pharmaceutical Journal, Weekly. By Dr. H. French.

A Note on Œsophageal Stenosis and its Treatment.

BY E. L. MARTYN-LOBB, F.R.C.S.

THE varied causes of œsophageal stenosis may be briefly summed up under four main headings:—

1. FUNCTIONAL.

In this group occur those spasmodic strictures which are found either as a part of a widespread neurosis or hysteria, or as a reflex result of some source of irritation situated either in the œsophagus itself or in other viscera more or less widely distant. For example, such spastic stenoses have been recorded in connection with foreign bodies in the external auditory meatus, laryngeal ulcers, and intestinal worms. They are commonly situated in the lower third of the œsophagus, close to the cardiac orifice.

2. PRESSURE STENOSES.

Such cases result from a compression of the œsophagus from outside by different agents, *e.g.*, thyroid growths, aneurysm, or mediastinal tumours.

3. FIBROUS STRICTURES.

These commonly arise as a result of the swallowing, by accident or intent, of acid, alkali, or some other corrosive. The cicatrisation of the ulcerative œsophagitis resulting from ingestion of very hot fluids or food, or continued drinking of raw spirits, may also lead to such a condition of fibrous stenosis. This form of œsophageal stenosis is frequently multiple, but the commonest sites correspond to the situation of the three physiological stenoses of the œsophagus, viz., at the upper extremity opposite the cricoid cartilage, in the middle opposite the bifurcation of the trachea, and at the lower extremity or cardia. This is usually attributed to a slight delay of the swallowed irritant at these points.

4. MALIGNANT STRICTURES.

These may be either epitheliomatous or carcinomatous, but are in the great majority of cases the former. Carcinoma of the œsophagus, however, does occur, arising either from the normal œsophageal glands or from the islets of gastric mucous-gland-epithelium found in the lower part of the œsophagus. The œsophagus may also be involved by a direct spread of growth from adjacent parts.

As regards treatment of these varying conditions, it is not necessary to say much of the cases in the first two groups. It is, however, chiefly of the treatment of those cases in group 3 on fibrous strictures that I would speak. It may be said, as has been remarked by Freyer on the subject of urethral strictures, that the multiplicity of suggested methods of treatment shows that a really satisfactory one has not yet been arrived at. Treatment of œsophageal stricture which in its general lines bears a strong resemblance to that of urethral stricture is the more difficult inasmuch as the greater part of the œsophagus is by no means so accessible as is the urethra. Treatment of these fibrous strictures falls naturally into two main sections according, to continue the analogy, as whether they are "permeable" or "impermeable." The simplest and commonest of all these methods consists in the use of bougies or sounds of varying shape and material. In this connection may be mentioned the bougie now in use by Von Eiselsberg and Hochenegg in Vienna. It was made at the suggestion of the former, and consists of a long rounded cord of moderately stiff red rubber so graduated in size from one end to the other as to pass from the diameter of the smallest œsophageal bougie to the largest. Considerable success has been reported from its use.

Attempts have also been made to divide these strictures by a thermocautery or concealed knife. Such methods, especially when they are performed without the assistance of the œsophagoscope, have all the objections to which internal urethrotomy is open together with the added consideration of the greater importance of the structures immediately adjacent to the œsophagus.

With the advent of the œsophagoscope attempts were made to guide the bougie through a stricture with the help of sight, and also an earlier method of Senator's, the placing of laminaria or sponge tents in the stricture, was revived. We shall refer to this method again in a moment.

When the stricture is sufficiently permeable and in a suitable position the use of Symonds' tubes is well known. When the stricture lies low down in the œsophagus the point of a bougie is difficult to control, and therefore some have suggested the formation of an œsophagostomy in the neck through which dilatation by bougies might be carried on, and also a Symonds' tube inserted for feeding. An additional advantage which may be urged for this method is that it avoids the pressure of an instrument on

the back of the cricoid. It is, however, a serious operation and not devoid of the danger of cervical cellulitis with a consequent mediastinitis.

Fibrolysin has also been tried in the treatment of these lesions: as far as can be ascertained without any very definite result, although there are cases where an improvement has been noticed during the use of this substance.

We now come to those methods of treatment of which gastrostomy forms an integral part. Firstly, a gastrostomy may be done for purely nutritive purposes: this may or may not be permanent, for it is a fact that after such an operation in many cases a stricture which was previously impassable spontaneously dilates and allows of the institution of dilatation by bougies which may be ultimately carried on to a completely successful end, the gastric fistula being allowed to close. In cases where the stricture will allow of the passage of a very small body, a shot or gelatine "perle" attached to a silk thread may be swallowed by the patient and recovered through a gastrostomy opening, increasingly large bougies being then guided through the stricture by its help. It has been suggested that this thread might be used as a string saw to divide the stricture from inside, but the method has not much to commend it.

Lastly, attempts have been made to carry out through the gastrostomy opening, by means of a bougie, sound, or the finger, a retrograde dilatation of strictures lying in the lower third of the œsophagus, more especially at the cardiac orifice. These all had the objection that the work was carried on absolutely in the dark, and that the folds of mucous membrane and the contraction of the cardia rendered passage of an instrument very difficult. These objections and difficulties are overcome by a method of combined retrograde œsophagoscopy and stricture dilatation, described by Dr. Alwin Ach in the "Beiträge zur Klinischen Chirurgie," 1910, which has been used by him with great success for some four or five years. A special form of œsophagoscope is used, which differs from the general type and resembles more a sigmoidoscope, in that the source of light is placed at the end of the tube farthest from the eye and nearest to the site of the lesion, and it is also fitted with a glass eye-piece and side tap for the injection of air. Great stress is laid on these two points. The gastrostomy opening, which is essential for this form of treatment, is usually made after Witzel's or Kader's method, of a sufficient size to admit the œsophagoscope easily, great attention being paid to the securing of a good valvular orifice to avoid the occurrence of eczema of the skin of the abdomen. It was formerly recommended that this opening should be made in the stomach as near to the cardia as possible, but Dr. Ach points out that the farther away from the cardia the better its result, inasmuch as the angle between the entering œsophagoscope and the cardiac orifice is greater, and hence the passage of the instrument does not cause pain.

Two days after the gastrostomy formation the œsophagoscope is passed into the stomach armed with an obturator and well oiled. Having entered the stomach the obturator is withdrawn, the mignon lamp introduced down the tube, and the outer glass eyepiece fitted on. A theoretical objection to the method is here shown to be only theoretical, and not practical. It does not in the least interfere with the success of the examination that the lamp should for a second or two come into contact with the gastric contents. A little air is pumped in through the side tap in the tube, the lamp is lit, and the rest of the proceedings carried out by the aid of sight. The cardiac orifice is recognised with its radiating folds of mucous membrane; it is seen to be closed. A puff of air and it opens a little; a slight approximation of the end of the tube to it, a further puff of air, and it opens widely, giving easy passage into the œsophagus, which is then systematically inspected. Treatment of a stricture is carried out through the tube under the direction of sight. Instruments, etc., are introduced through an eccentrically placed window in the eye-piece. Dr. Ach uses a small laminaria tent sharpened down to a fine point. This is set in the stricture and allowed to remain for two or three hours, at the end of which time it will be found sufficiently dilated to pass a small œsophageal tube or bougie through. The rest of the treatment is simply a continued use of such bougies, increasing in size till the patient is able to swallow everything. From the marked tendency of these fibrous strictures to re-contract, it follows that treatment must in many cases be long protracted. The following indications are given for the use of retrograde œsophagoscopy:—

1. In all cases with multiple strictures.
2. In "tube-shaped" strictures.
3. In strictures of the pars diaphragmatica and at the cardia.

Lastly, a few short notes as to the treatment of malignant strictures of the œsophagus. Excision is naturally the best treatment, and in the case of tumours situated high in the tube

and early diagnosed it may be possible. In the case of tumours situated in the lower or thoracic portion a posterior trans-mediastinal route of approach has been proposed. The incision is made in the lateral spinal groove, the tips of 5–7 transverse processes are removed with the necessary portions of ribs. The sympathetic chain is displaced gently outwards and the œsophagus arrived at through the tissues of the posterior mediastinum. It is a formidable proceedure, and all the cases so far subjected to it for resection of a tumour have died. That the method of approach is practical is proved by a case of Prof. Enderlen's, in which œsophagotomy was done for an impacted foreign body. I had the pleasure of seeing this man recently with Prof. Enderlen. It is now six months since the operation and he is eating everything. There is no trace of a fistula or any suppuration, nor is there any pain or weakness in the back.

The possibility of the formation of a new œsophagus composed of skin, or gut, or both, has already been demonstrated, and Prof. Lexer showed a highly successful case of this line of treatment at the recent Surgical Congress in Berlin. I saw this case of skin and gut. The operation was done for stricture following the taking of oxalic acid. I can testify to the perfect functional result. The girl can eat and drink anything. The upper two-thirds of the tube, of course, is of skin and has no peristaltic properties. At present it works well, but one wonders what the ultimate result will be.

Generally, however, the treatment is confined to the occasional passage of bougies or Symonds' tubes—not without danger from the risk of perforation of the ulcerated œsophageal wall—or to the formation of a gastrostomy for nutritive purposes. The foregoing methods, though at present rather startling, represent an attempt to arrive at some more radical methods of treatment than these latter.

Guy's Hospital Athletic Club.

THE Sports will be held at Honor Oak on Saturday, une 17th. The ordinary field and track events will be decided; preliminary heats, where necessary, being run off on Tuesday, 13th June. It is hoped that everyone interested in athletics will turn out and train, as we hope this year to win back the Inter-hospital Shield once again. Notices have been posted in the hospital, and entry forms can be obtained from the secretaries.

A. B. DANBY,
H. W. EVANS, } Hon. Secs.

Choral Society Concert.

THE Choral Society held the second of their annual concerts in the Physiological Theatre on Friday of last week. A deplorably small but enthusiastic audience listened to a most attractive and well-chosen programme.

It seems such a great pity that so important a side of our hospital life, as this is, should be so poorly supported. It is a charge constantly, and, we think, deservedly levelled at the medical profession that outside their work they have no knowledge of, and very little interest in, the gentler side of life—the arts, literature, painting, and music—that a large number of them cannot write a letter in decent grammatical English or spell a hundred consecutive words correctly.

What a pity, therefore, that with such a society as the Choral flourishing in our midst the audience should consist of a small fifty, drawn almost entirely from our large Nursing Home, supported by one or two members of the Staff, the students being represented by four—I apologise—five members in the gallery.

The Society themselves showed a sad falling off in numbers from previous concerts, especially in the male voices, where four brazen-throated individuals did their utmost to balance some twenty nurses.

To cease this lamentation, we wish to give a very hearty word of praise to the performance. Nurses *Miller* and *Hetches* gave us of their best, and most heartily was it received. We noted a new and most delightful voice in Nurse Oliver, who took the soprano part in two of the quartettes. She has a small voice, but one of the most exquisite sweetness and purity of tone, and we hope to hear her often in the future.

The great treat of the concert, however, lay in Mr. Carey's three songs, which he sang with that charm and perfection of utterance which we now know to expect from him. The second one, a folk song entitled "A lover's tasks," we wish that we could quote, for it well deserved it, but we hope that we shall hear it again.

The chorus sang well on the whole, but were hindered by the lack of balance in the heavier parts. Their last item, "Haymakers," was their best, and was sung with great life and go, and well deserved the encore that it received.

Great credit is due to Sister Ruth and Mr. Carey that they were able to arrange any concert at all, in the face of the discouraging lack of interest and apathy in those who should have been their supporters, and we sincerely hope that their efforts will not go unrewarded, but that the society will rise again recreated by their indefatigable courage, and that they will once more be surrounded by enthusiasts—nurses and men who realise that there is something else in life than "bugs and drugs."

A Case of Syphilitic Meatitis.

BY W. M. MOLLISON.

THE following case is one of considerable interest on account of the rarity of the condition.

Charles B., 32 years old, a labourer, attended the Aural Out-Patient Department in March, 1911, suffering from painful swelling in the left ear. The left ear had discharged for two years, the right for much longer, probably since an attack of measles in youth; in consequence, he has always been a little deaf. The left ear began "swelling" three months previous to his attendance, and became painful six weeks ago. On examination of the left ear, ulceration of the meatus was seen, extending outwards to the meatal aspect of the tragus and just to the junction of meatus and concha. The ulcerating surface was covered with greyish-pink moist granulations, which did not bleed on being touched; these were so exuberant as practically to block the meatus, and so prevent any view of the membrane. The insertion of a speculum gave rise to some pain. Pus was escaping along the narrow passage left, so confirming the man's statement of the presence of chronic otorrhœa. There was no pain over the mastoid process, no enlarged glands were felt in this position and there was no tenderness; immediately below the mastoid process a gland was felt. The pinna was normal.

The right ear showed a perforation of the membrane, with a discharge of pus; the meatus and pinna were both normal.

Though no history of syphilitic infection could be obtained, a provisional diagnosis of a meatitis due to the spirochæta pallida was made. To confirm this several smears of the pus from the ear and of the moist discharge from the granulations were taken. Some were stained with Geimsa's stain, and others were examined after mixture with Indian ink.

Dr. Eyre reported that spirochætæ pallidæ were to be seen, mixed with spirochæta refringens in large numbers. A specimen of the man's blood gave a positive reaction to Wassermann's test. Further confirmation was found in the presence of a scar of a genital chancre. There were no other symptoms or signs of any secondary syphilitic lesion to be found.

The patient was given mercury in the form of perchloride in a mixture and some hydrogen peroxide drops to clean the ear. In a week's time the ear was better, the pain had disappeared, and the granulations were less. After fourteen days' treatment the man ceased attending, and unfortunately cannot be traced.

Syphilitic ulceration of the external auditory meatus is a very unusual condition. In the System of Syphilis by D'Arcy Power and Murphy, West states that condylomata of the meatus are comparatively common when there are condylomata elsewhere in the body. He quotes Ravogli who found, among 144 cases of syphilis, one case where the meatus was affected.

Gerber in his recent (1910) edition of Syphilis of the Nose, Throat and Ear, quotes the following: Of 1,200 syphilitic patients, 980 had condylomata, and of these, 6 only had condylomata of the meatus (Despres); and of 7,000 ear patients, 30 had disease of the meatus, of whom five only had condylomata or ulceration (Buck).

It is stated to be more common in females than males, and it is usually confined to one side. It generally attacks an ear the subject of previous otorrhœa, as in the case cited.

Mr. Cheatle, in an address on Syphilis in Relation to Otology, mentions that he has only seen four cases of condylomata of the meatus.

In the Guy's Out-Patient Department one case of condylomata in the meatus was seen in 1909. This was in a man of 36 whose symptom was pain in the ear for seven weeks; the report does not state whether there were condylomata elsewhere, nor on what points the diagnosis rested.

Perhaps the chief points of interest in the present case are:—

1. The painful ulceration and the moist granulations which did not bleed on manipulation.
2. The entire absence of any other secondary manifestations.
3. The demonstration of the spirochæta pallida in the discharge by means of the Indian ink method, making it possible to determine the diagnosis in a few minutes.

Guy's Hospital Physiological Society.

THE President's Prize for the best paper read before the Society last season has been awarded to Mr. W. E. Tanner for his paper on "The Biological Aspect of Socialism."

H. W. EVANS, Hon. Sec.

Appointments.

Civil.

W. A. Haslam, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Resident Medical Officer, Hull Corporation Sanatorium.

Phillip Turner, F.R.C.S., has been appointed by the General Medical Council, Examiner in Surgery to the Apothecaries' Society of London.

Diagnosis and Treatment of Displaced Cartilages and Loose Bodies in the Knee-Joint.

CLINICAL LECTURE BY R. P. ROWLANDS.

I HAVE chosen this subject for my Clinical Lecture because I want to lay stress upon certain points in the diagnosis and treatment of displaced cartilage.

1. ANATOMICAL POINTS.

(*a.*) *Semilunar Cartilages.*—The semilunar cartilages are attached at their extremities to the upper end of the tibia. The anterior extremity of the internal often has a comparatively feeble attachment and is liable to be displaced by slight violence. The cartilages are also attached round their circumference to the upper end of the tibia and to the inner surface of the capsule and lateral ligaments of the joint. These cartilages are displaced usually by violent twisting movements of the femoral condyles upon the upper end of the tibia while the foot is fixed on the ground and the knee is slightly bent. The arrangement of the crucial ligaments is such as to allow a great deal of eversion of the leg at the knee, whereas the ligaments become twisted and taut during inversion, which is thus strictly limited. During excessive eversion the rotating internal condyle may displace or tear the internal cartilage. The displacement is all the more likely if there is any tendency to adduction of the knee or stretching of the internal lateral ligament at the same time. Sometimes the internal semilunar cartilage shifts during inversion of the leg, but this is rarely the way it is first displaced. The cartilage may become impacted between the most prominent part of the condyle of the femur and the concavity of the tibia. Under these circumstances it prevents full extension of the knee, and any attempt to do this exercises a painful stretching force upon the posterior ligaments of the joint. In other cases a displaced piece of cartilage may lie in the intercondyloid notch without doing much harm as long as it remains there, but it is constantly liable to get impacted between the articular surfaces and to give rise to the classical symptoms of this condition. The external cartilage is so firmly attached and so little subject to violence that it is rarely displaced.

(*b.*) *Loose Bodies.*—A loose body floating freely in the knee-joint is comparatively rare. It may consist of a piece of cartilage or bone knocked off one of the condyles of the femur (generally the internal) one of the synovial fringes which has become polypoid and then detached, a piece of the semilunar cartilage torn off, a piece of organised fibrin, or an actual foreign body such as a needle or a stone. I recently saw a patient who had an unsuspected stone in the knee, following a bicycle accident. The most important of these is the first. A severe injury, generally a fall upon the inner side of the knee, may chip off a piece of the prominent inner edge of the internal condyle.

(*c.*) *Synovial Fringes.*—It is well known that in chronic synovitis and osteo-arthritis polypoid fringes of the synovial membrane may form. These may get nipped between the bones and may give rise to symptoms and signs resembling those of displaced cartilage. This condition nearly always appears in people past middle age. It is not so generally known that the polypoid alar fringes of the ligamentum mucosum may get nipped in quite young people. Repeated injury of this kind leads to chronic inflammation and enlargement of these fringes, so that displacement becomes more frequent and its results more striking. A diagnosis of displaced internal cartilage is generally made. This is removed without affording permanent relief. It may be remembered that the ligamentum mucosum and the alar ligaments form a triangular process extending from the back of the ligamentum patellæ to the intercondyloid notch of the femur. The fringes naturally lie between the condyles of the femur during flexion, but when enlarged they may easily get displaced and nipped between the femur and the tibia during extension of the knee.

The following two cases are good examples of displaced cartilage. In the first the primary injury was a violent one. In the second there never was any serious injury, but only eversion and abduction of the knee during flexion.

CASE 1.—Mr. F., aged 61. Fourteen years ago the patient fell from his bicycle and twisted his knee. There was no direct injury to the knee. He felt something snap and thought that it must have been a tendon. Something got displaced at the time. His knee was put in plaster of Paris for about a month and then massaged and moved, and it very gradually recovered its movements. Nothing else happened for some years, until he was playing in a tennis tournament, and in taking a hard ball some-

thing went again. He had pain at the back of tke knee. He had to give up the game and was assisted off the court. He went about for some time with the aid of a stick. Three years later he was going into a shop and twisted his foot, and the knee gave way again. He almost fell, but saved himself by catching hold of the door. Four years later he came to England, and while getting on the boat on his way out to Chili his knee gave way again. It has been giving way at shorter intervals ever since, especially if he turns the toes out. The last time it went out was while the patient was asleep in bed. He got it back again by eversion and flexion of the leg. Of late he has been getting much stouter and into a poor state of health because he cannot take exercise. He cannot even play golf. He has never felt any lump in the knee.

A loose internal cartilage was turned in like the handle of a bucket and was lying between the condyles of the femur, permanently out of position. Working with a tourniquet there was no bleeding and no difficulty in removing the cartilage. The dressings were firmly applied before the tourniquet was removed. First a sterile gauze bandage was loosely rolled round the knee, then large sheets of sterile wool rolled in the form of a bandage were applied, and then a Domette bandage was very tightly applied. The patient had very little discomfort. The bandage was rather tight about the fourth day, and was re-applied. There was no swelling of the knee, but a little œdema of the leg. The knee was moved. The patient got out of bed five days after the operation, began to walk on the seventh day, and walked out of the Nursing Home fourteen days after the operation with no swelling and no limitation of movement of the knee. He was seen walking perfectly eighteen days after the operation.

CASE 2.—Mr. C., aged 46. On two or three occasions during the last two years, while kneeling in his bath with his feet everted, the patient has felt a click and severe pain in the knee. The pain is always on the inner side, and lasts for two or three days. Three weeks ago, while laying linoleum at his home, and kneeling on the floor with the left foot rotated outwards, something seemed to go out of place in his left knee and he was in great agony, and when he got up the knee was fixed. The pain in trying to get it straight was awful. He felt sick and nearly fainted. Since then he has never been able to get the knee straight. The pain on walking is very bad, and he walks on tip-toe with the heel off the ground. There has been very little swelling of the knee, which was strapped over Scott's Ointment. The leg and thigh then swelled a good deal. Since then he has had a great deal of pain on walking. He saw two doctors, who attempted to replace the cartilage by manipulation, but failing they advised operation. When he was sent to me the knee could not be straightened, and any attempt to force it into this position gave great pain. The patient limped about on the fore part of his foot, never putting the heel on the ground. There was a good deal of tenderness over the situation of the internal cartilage, but none anywhere else.

An operation was performed in Bright Ward, Mr. Plumptre giving the anæsthetic. A tourniquet was applied. A small incision was made over the internal cartilage, and this was found to be split from front to back, so that the greater part of it was permanently displaced inwards, while the remaining portion remained attached to the capsule and other end of the tibia. The displaced part was removed. The patient had a good deal of pain for two days, but his knee did not swell, and it has been moved from the fourth day. The patient got up about the tenth day, and was walking fairly well within a fortnight.

2. DIAGNOSIS.

(*a.*) *Displaced Cartilage.*—In the diagnosis of this condition special stress should be laid upon the *history of twisting* of the knee in the characteristic position. The original injury is generally fairly severe, but displacement may recur very easily, even as the patient turns over in bed, or the knee may suddenly give way as the patient turns with the foot of the affected leg on the ground. The history of a *definite click or snap, followed by locking*, is characteristic of displaced cartilage. There is generally a great deal of pain, often described as an agony, and the patient may feel sick, or even faint. Inability to completely extend the knee, and a limp with the heel off the ground indicates that the cartilage is still out of place and impacted between the bony surfaces of the femur and tibia. In many cases there is a history of the *replacement of the cartilage* with a snap. The displacement is followed by an attack of synovitis lasting for a few days, but in some cases there is no indication of this. Upon examination there is usually distinct local tenderness over the internal cartilage, and often grating, which is palpable and audible, especially with the aid of the stethoscope. The external cartilage is not so frequently displaced, but

when it is there are pain, tenderness, and creaking over the anterior part of the cartilage. It is always to be remembered when an exploration on the inner side is negative, and also when symptoms recur after the removal of an internal cartilage.

(*b.*) *A loose body* is distinguished from a loose cartilage by the history of a *definite local injury* which has either chipped off a piece of one of the condyles or has induced bleeding into the joint. Also by a definite history of a *palpable loose body appearing in different parts of the joint*, sometimes on the inner, sometimes on the outer side of the patella. An X-ray examination may show and localise a loose body lying between the condyles of the femur, whereas it rarely shows anything definite when the condition is a displaced cartilage; it may show osteophytes in cases of osteo-arthritis. The following is an interesting example of a loose body in the knee.

CASE 3.—*Loose Body in Knee.* Mr. S., aged 51. When 18 he had a severe accident on board ship, injuring the left knee, and was laid up for three months. When he was about 35 he had a severe fall, upon his left knee, from a bicycle, and since then the knee has been giving way and getting inflamed frequently, and a loose body has at times been felt in various parts of the joint. Thirteen years ago one was anchored with a needle and removed. It was about the size of a broad bean. The patient was much better after the operation, but during the last few years his symptoms have returned, and he has often felt a loose body, usually on the outer side of the ligamentum patellæ, and once or twice in the inner side in the region of the internal semilunar cartilage. He has also had a swelling in the neighbourhood of the semimembranosus bursa. While shooting, or taking any active exercise, the patient's knee may give way suddenly, throwing him to the ground, and this is generally followed by synovitis, so that he has had to give up all active exercise. He was examined with the X-rays, by Mr. Shenton, and a loose body was shown lying between the condyles of the femur, and several small pieces also about the upper end of the tibia in front.

The knee was opened on the inner side, and the internal cartilage was seen to be normal. A cartilaginous loose body, half an inch long and one-third of an inch thick, was found lying on the outer side of the crucial ligaments between the condyles of the femur. This was easily removed with the aid of a scoop. A tourniquet was, of course, applied, so that no bleeding impeded the view. Several fringes of the synovial membrane were seen to be calcified, and there was a good deal of chronic inflammation about the front of the tibia, indicating the friction of the loose body, especially in the neighbourhood of the external semilunar cartilage. The alar ligaments were also white and unusually polypoid, and some of these polypi were removed. On the internal condyle of the femur was seen a transverse depression extending from its inner edge. This was smooth and covered with cartilage, but it was clearly the spot whence a piece of the condyle had been chipped off and had later been broken in two by being nipped between the tibia and fibula. One of the pieces had been removed thirteen years ago, while the other had given rise to symptoms ever since. The patient went home after three weeks, and was walking well in five weeks.

(*c*) *Chronic Synovitis with the development of Fibrous Polypi on the Alar Ligaments.* With this condition there is recurrent and severe synovitis, but rarely any history of a definite click or snap.

CASE 4.—Mr. G., aged 19, was sent to me five years ago with the typical history of loose cartilage in the knee-joint and an unusual amount of synovitis. He had injured his knee while jumping to collar a boy at football. He had been treated with massage and movement without any marked effect. Mr. Jacobson saw him and advised operation for the removal of the cartilage. He also saw Mr. Pearce Gould, who agreed as to the diagnosis and treatment. I saw him after five or six attacks, and upon opening the knee-joint found a great deal of chronic synovitis. The internal cartilage was not loose, but I removed it thinking that it might be a case of subluxation. A piece of synovial membrane was also removed for microscopic section; it showed signs of chronic inflammation only. The patient had an unusual amount of synovitis after the operation. He was well for ten months, when he slipped on the lawn while playing tennis. The knee gave way and the patient fell at once. He had very little pain, but water formed and he was laid up for a fortnight. Mr. Whitelocke, of Oxford, saw him, and diagnosed severed adhesions. For another ten months the patient was well, but he then had a severe bicycle accident. He came down on his foot and twisted it in; there was no direct injury to the knee. When playing football and while dancing

the knee gave way sometimes. He had no pain, heard no noise, and never felt a snap. At the end of 1908 the knee gave way again. He had to give up all games, except golf, and he was all right until June, 1909, when he started playing cricket, and as he was turning to make a second run his knee collapsed again. There was some pain at the instant and he had to give up the game. The knee swelled a good deal, but all the fluid was gone in ten days. There was a good deal of tenderness over the inner side of the knee, but no pain or tenderness over the internal cartilage. After consultation with Mr. Whitelocke it was decided to open the knee on the inner side. There was no trace of the internal cartilage left; some connective tissue had grown in from the capsule partly to replace it, covering the upper edge of the tibia. Large inflamed fringes of the alar ligaments were seen. Some of them were hard and white. They mostly lay in the intercondyloid notch, but they were so large and so polypoid that they could easily get nipped. One of them was actually bruised. These were freely removed, and examined microscopically. The patient had an unusual amount of synovitis after the operation. The fluid was several times withdrawn and cultivated, but no bacteria were ever found. Ultimately the condition rapidly cleared up, and the patient was walking six weeks from the operation, and since then he has remained well.

(*d*) It is not uncommon to mistake *early tuberculous disease* of the knee-joint for displaced cartilage, and this is all the more easy because tuberculous disease often starts in the synovial membrane in the neighbourhood of the internal cartilage, this being the most vulnerable part of the knee. It is of the greatest importance to arrive at a correct diagnosis, because an operation is never indicated for an early tuberculosis of the knee, which is recoverable with conservative treatment. The distinguishing points are the gradual appearance of the symptoms and signs in tuberculous disease some weeks or months after an injury, with no definite history of locking or snapping, but only a weakness of the knee. There is more puffiness or vague swelling on the inner side of the knee, especially when the latter is flexed. Moreover, there are *no* intervals during which the knee is quite well. In some cases the X-rays may show a little caries of the upper end of the tibia or lower end of the femur, but this is rare. The various tuberculin reactions may give some assistance if they are taken with care both before and after movement, but they are not, in my opinion, so valuable as the ordinary physical signs of tuberculous disease. The result of massage, gentle passive movement, and exercises is of great value, because they increase the tuberculous inflammation, whereas they nearly always diminish that due to displaced cartilage, unless it is actually out of place at the time.

3. OPERATION FOR DISPLACED CARTILAGE.

We should endeavour to improve upon the natural course of events, especially as regards avoiding bleeding and stiffness.

When a cartilage is displaced and returns to its natural position there is usually synovitis, which subsides in about a week, especially if massage, passive movement, and exercises are used. Under these circumstances the patient is usually walking about again, fairly well, in from one to three weeks. After an operation the function of the knee should return even earlier, for we have two great advantages, namely, (1) that the irritating loose cartilage has been removed, and, (2) that we can anticipate and prevent bleeding and effusion into the joint by firm bandaging. Another way of preventing hæmorrhage is to introduce a sufficient number of interrupted salmon-gut sutures through the capsule and skin. When these are tied they effectually prevent bleeding. These sutures are better than any form of buried suture which does not control hæmorrhage so well, and may give rise to synovitis. It is of the utmost importance to prevent bleeding into the joint at the time of the operation. This is done by the habitual use of a tourniquet. This not only prevents the irritation of the joint by blood, but also prevents the latter from obscuring the field of operation. The exploration and work done inside the knee are in this way made much more quick and accurate, and the need of sponging and prolonged mechanical irritation of the knee is abolished. The tourniquet is not removed until the dressings are applied and firmly bandaged, thus giving an additional safeguard against hæmorrhage and effusion. For removing the internal cartilage a vertical incision about two inches long is made over the internal condyle and the inner tuberosity of the tibia, parallel with and about an inch and a quarter behind the patellar ligament. The capsule is incised parallel to its fibres, and the joint is opened above the internal cartilage. In this way a good view of the anterior two-thirds of the cartilage is obtained, and also of the alar ligaments and of the depressions on either side of the crucial ligaments. First the anterior extremity of the cartilage is detached from the

tibia and secured by means of a powerful tenaculum forceps, which is used to draw the cartilage forward, while the knee is flexed and the cartilage detached from the tibia and inner side of the capsule. The cartilage is then divided at the extremity by means of a hernia knife. An incision in this position is better than one placed further back, where the scar may be tender and cause trouble during riding. Moreover, it allows a much better exploration of the knee than an incision placed lower down, when the cartilage is approached from below at its attachment to the tibia. Nothing but instruments is ever inserted into the knee-joint, and the wound is closed as already described. Then a sterile gauze bandage is loosely wound around the knee. A large amount of sterile wool is then evenly applied from the middle of the calf to the middle of the thigh. This is secured in position by means of a loose bandage. Then a Domette bandage is very tightly applied, but it is not carried either to the lower or outer border of the wool, which projects and protects the thigh and leg from the galling pressure of the edge of the tight bandage.

When the patient is returned to bed the limb is placed on a high wedge pillow, with a small cushion behind the knee, and kept between sandbags. If there is much swelling of the leg the bandage can be loosened and reapplied, but as a rule it is not necessary to remove it until the fifth day. It and a great deal of the wool are then removed and the knee is gently flexed, and from this time movements both active and passive are carried out. The patient is generally up on a couch on the seventh day, the stitches are removed on the ninth day, and the patient is walking a little on the tenth day with the support of a crêpe elastic bandage firmly but not tightly applied. At the end of a fortnight the movements of the knee should be completely restored, and the patient should be walking about well and able to leave the hospital. Massage, active and passive movements, greatly accelerate the recovery. No splint is ever used. It is not only uncomfortable, but by preventing gentle movements it promotes the formation of troublesome adhesions.

Change of Address.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

(Completed address.)—R. Felton, M.B., B.S., P.O. Box 198, Victoria, British Columbia, Canada.

Gynæcological Dresser.

WHEN in order chronological
To wards gynæcological
The dresser is promoted by his fate,
Fully conscious of ability
He welcomes the facility
Of learning in new spheres to operate.

He finds the Registrar is
Most instructive, and, so far, is
Very pleased with what he finds upstairs in Queen,
And he'll wax enthusiastic
Over ops. iconoclastic,
Which are something that, till then, he's never seen.

But as the days roll by him
There are lots of things to try him,
And he's very soon regretting that he came;
For he finds that his position
As a surgeon or physician
Is, to say the least, remarkably tame.

If he's really very able
Near an operating table,
Armed with forceps and a sponge, he takes his stand,
Or, sometimes, even better,
An obstetrical red letter
Day, he'll even touch a patient with his hand!

Still, its really quite good training
If from lifts and such refraining
He walks up; and so I'll end with this remark:
If a dresser does no dressing
Why not grant him this one blessing,
And just call him what he is; an honest clerk.

S.

Pass List.

University of London.

THIRD (M.B., B.S.) EXAMINATION FOR MEDICAL DEGREES.—MAY, 1911.

PASS.

Catto, H. W.	Penny, E. A.
Fox, W. E.	Todd, A. H., B.Sc.
Hind, G. R.	Warner, H. P.

SUPPLEMENTARY PASS LIST.

The following Candidates have passed in one of the two Groups of Subjects:—

GROUP I.

Crump, C. H.	Marshall, G.

GROUP II.

Blackwood, B.	Denning, A. F. W.
Blake, G. A.	Jones, T. L.
Covell, G.	Mitchell, D. A.

Monaghan, P. J.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

National Insurance Bill.

[Owing to the large number of letters received on this subject, we are only able to publish a selection.—ED. G.H.G.]

DEAR SIR,—I have read with interest Dr. Fremantle's very able article on the above, but I see that I shall have to read and re-read it again several times before I can "take a lead in asserting the national value of this Bill" or in ignoring "mere professional justice." I do not know whether Dr. Fremantle has any experience of general practice or no, but I can say of my own personal experience that even now more is exacted gratuitously from the medical profession than from any other form of earning a living for self and family. And to put on one side the question of "mere professional justice" would be purely quixotic if not indeed suicidal.

Mr. Fremantle may have a blind faith in the Chancellor of the Exchequer and his political party: to be frank I have not. Therefore I think it behoves us all to consider carefully how this most important Bill will affect, not only ourselves, but our less fortunate medical brethren, struggling for a living in the densely-crowded industrial centres.

I would ask Dr. Fremantle one question. Is it not possible that this Bill will—designedly or otherwise—merely exploit the medical profession in order to make the present Government popular?

Our profession is a most expensive one to enter, and it receives practically no reward from the State, in either honour, wealth or position.

We have no organisation—nor apparently any hope of any—so perhaps we shall be wisest to take this Bill "lying down." It is the old story. We shall not get "professional justice."—Yours, etc.

Sevenoaks. GERALD SICHEL.

DEAR SIR,—May I be permitted to add a few remarks on the above to those of yours in Passim in the issue of G. H. G. for May 27th?

Doubtless the ideas in the Bill are an advance in our civilization, but that the benefits (?) should be granted at the expense of the medical profession in far greater proportion than any other part of the community is to me outrageous. I have the good fortune to be in a position to have retired from general practice—not, I may say, on what I was able to make out of that practice—and so I speak more out of extreme sympathy with those who still must remain hard at work than with any fear of my own pocket being touched. I feel confident that a very large proportion, if not an actual majority, of G.-P.s are to-day just able to make a living out of practices in which the patients are those who can and do afford to pay very moderate fees, and these patients, under the proposals of the present Bill, will now be swept into a huge club, whose medical officers will be disgracefully underpaid and overworked, and these practitioners consequently loose their present livings and the market value of their practices will be gone.

When starting in general practice I made a firm resolve never to touch contract work, and on many, many occasions had I cause to be delighted at having done so, for the complaints about the "club doctor" were never-ending, and so it must be with the present scheme.

How can any reasonable being expect satisfactory medical attendance at the rate of four, five, or even six shillings per head per annum? And yet there were many who seemed to think they were paying handsomely. I certainly was inclined to blame the doctor in many instances, for if he knew he could not conscientiously do the work at that rate, why accept the miserable salary? I fervently hope that if the scheme of capitation fees be finally passed, medical men will, without exception, absolutely refuse to enter into the working of it at all. They have the remedy entirely in their hands.

As far as one is able to see at present, those most likely to benefit by the scheme are the ones who are going to have fat billets as Insurance Commissioners, and on various extraordinary committees, etc., etc.—a few more posts for Treasury patronage.

Shall we next have free legal advice at four shillings a head? I doubt it.

This wild socialistic scheme, like most others of its class, will recoil on the heads of those whom it is supposed to benefit, for the people will pay into it, and, finding that they are dissatisfied with what they get, will still have to pay in some other direction for medical attendance, unless the law next means to compel them to be attended by State appointed doctors,—Yours faithfully, G. McGREGOR.

May 29th, 1911.

DEAR SIR,—I have read Mr. Fremantle's article on the National Insurance Bill, and noted with interest and some amusement his advice to the profession to sink all ideas of mere professional justice and to consider only the carrying out of the scheme on lines of efficiency. I would venture to suggest, but of course I may be mistaken, that had Mr. Fremantle been a general practitioner instead of a salaried official he would have written in quite a different vein. It is very easy to sit under the "midnight osram" and moralize as to the relative values of efficiency to the State and mere vulgar justice to the individual. It does not matter in the least if the doctor's income suddenly falls to the extent of a paltry hundred or two a year: it is all for the good of the State, and hence desirable in every way. It does not matter if the doctor has to sell his car, which perhaps represents years of unremitting work, and go back to his bicycle: it is of course excellent exercise and he should not dream of putting the nightly physical weariness in the balance against the good of the State

besides the paltry hundred or two may partly be made up by doing without the annual holiday, which, of course, is really a luxury and not a necessity.

Surely Mr. Fremantle must see that this "bill of medical serfdom" if carried out on its present lines must have a disastrous effect on the profession in general. Many men will be absolutely ruined, and every practitioner in the country, even in high-class practices, will be badly hit, seeing that there will be nothing to prevent the man with an income of £1,000 a year or more obtaining his medical advice at club rates.

From what source will the next generation of medical men be drawn? That is a question of serious import to the State, which those in authority do not seem to have considered. How many old Guy's men in the future will send their sons to the dear old place in the Boro'? Not many, I imagine.

Who is to compensate the doctor for such things as loss of goodwill? The practice or partnership for which he paid £1,000 a few years ago is unsaleable to-day, and may perhaps be worth £500 in the near future; very hard on the doctor, of course, but in the light of benefit to the State Mr. Fremantle is of opinion that, being smitten on the one cheek, the doctor should willingly offer the other in terms of underpaid efficiency. Where does Mr. Fremantle imagine the doctors' wives and children come in? Perhaps he has not thought of these things, but I can assure him they are very vital considerations to practitioners in general.

With regard to administration, Mr. Fremantle's naive confession that in his opinion it would be a great mistake to introduce yet another health authority into the county is distinctly refreshing, general practitioners may, and should, feel the pinch for the good of the State, but existing health authorities must be held inviolate, with further duties of administration to carry out, with presumably a further increment of salary.

Mr. Fremantle's views are terribly one-sided, and as an old colleague of his I feel a protest is surely needed. There can be no efficiency apart from justice to the individual, they must go hand in hand. It is not in human nature for the underpaid medical man to give of his best, and if the Bill passes as it now stands the medical profession will sink into a condition of serfdom, it will be bad for the doctor, bad for his patients, and ultimately bad for the State.—Yours faithfully,

WILLIAM T. MILTON.

Eltham,
May 28th, 1911.

Hospital Cricket.

DEAR SIR,—May I, through the columns of your paper, call attention to the lack of keenness shown by cricketers at the hospital this season? It seems a great pity that out of about 500 men it should be practically impossible to get a team of eleven men to play. I understand that members of last year's team who are still eligible to play in Cup Ties have not the time to play this season, but I see that some of those gentlemen have got the time to play for *outside teams*. They may say that the games they play in are only half-day matches, but I should like to point out that our 2nd XI. matches are also half-day games. Surely these gentlemen might condescend to play for the hospital 2nd XI. rather than for teams which used to play our 3rd XI.! By the time the next issue of the GAZETTE is published we shall, I think, have played off the first round of the Cup Ties, and I sincerely hope shall have qualified for the next round. Therefore, may I ask all cricketers in the hospital to try and get some practice and to make a bold bid to retain possession of the Inter-hospital Cup.

In conclusion, may I once more appeal to the cricketers of Guy's to turn out and do their utmost to get hospital cricket out of the mire into which it is fast sinking.—Yours faithfully,

"A MEMBER OF THE PAST TEAM."

Honor Oak Park,
June 3rd, 1911.

The Bust of Sir Astley Cooper.

SIR,—Anything the subject of gross and unmitigated neglect, be it animal, vegetable, or material, is apt to excite our compassion and stimulate our callous and indifferent natures to a sense of our duties or responsibilities.

The bright sun of to-day, as I entered the portico of Hunt's House, fell full on the abject figure of the once beautiful marble bust of Astley Cooper, with its appropriate figured pedestal. How well I remember, some forty years ago, with what awe I gazed on that spotless white bust, protected by a brilliantly polished brass rail, when it stood at the end of the Wax Model Museum, under the fostering care of that most excellent hospital servant, William Betts.

What a contrast to its present state, showing the results of thirty years of neglect, in its incongruous medical surroundings. Greasy, besmirched, bedabbled with the ingrained filth of years, its pedestal chipped and scratched, its protecting rail unpolished, it suggests a great reputation after being dragged through the mire of a revolutionary and socialist press. Nor is it without signs of the revolutionary spirit imprinted upon it, for some young iconoclast has well aimed, apparently, a rotten orange at the great surgeon's eye, and has left a stain on his left temple and cheek. Only the absence of loose stones has probably saved it from destruction.

Being thus moved to think how this bust could be saved from further destruction, I went to the ward which takes its name from the great surgeon. I hoped to find that there might be space for it to stand opposite the window at the end of the ward, so that it would meet the eye on entry; but I found this space occupied by taps and basins. The Sister, however, pointed out to me that one of her fireplaces had been bricked up as unnecessary, and there appears to be ample space for it to

stand there. The wall of red bricks is not an ideal background for a bust; but our architect, Mr. Woodd, might, perhaps, be allowed to cut away the wall so as to make an arched inset with corniced border, and the inset might then be painted an appropriate colour.

Though much damaged by neglect, the bust and pedestal can, I think, be cleaned to some extent by preparations known to marble masons. Once restored, and put under the charge of the Sister of Astley Cooper Ward, I feel sure it would be preserved from further decay, and all must admit that it would then stand in a situation more appropriate than at the entrance to the medical buildings, where it is under no one's care.—Yours faithfully,

R. CLEMENT LUCAS.

May 25th, 1911.

Nursing News.

MATRON'S OFFICE.

Miss V. N. Kiddle, Sister-in-Charge of the Out-Patient Department since October, 1909, has been granted special leave of absence to take Midwifery Training. Miss Jentie Paterson, who has been acting as one of the Preliminary Pupils' Instructresses since October, 1909, has been appointed Sister-in-Charge of the Out-Patient Department. Miss F. N. Kingzett, Medical Night Sister since January, 1911, has been appointed Second Preliminary Pupils' Instructress; and Miss Editha L. Sweet-Escott, who completed her training in March, 1910, and has since been private nursing in Egypt, took up her duties as Probationary Night Sister on May 29th, 1911.

On May 12th, Nurse Forbes left the Hospital on completion of her three years' training to take up her duties on the Private Nursing Staff. Nurse Iles was appointed to succeed her as Head Nurse in John ward, and Probationer Lane was appointed to succeed Nurse Iles as Head Nurse in the Surgery.

On May 12th, Probationer Lear was appointed to succeed Nurse P. Wallis as Head Nurse in Addison ward.

On May 15th, Nurse Strappini, Head Nurse in the Eye wards, left the Hospital on completion of her three years' training.

On May 19th, Nurse Keeble left the Hospital on completion of her three years' training, and Probationer Bourdillon was appointed to succeed her as Head Nurse in Stephen ward.

On May 26th, Nurse H. Taylor left the Hospital on completion of her three years' training to take up her duties on the Private Nursing Staff, and Probationer Quin was appointed to succeed her as Head Nurse in Bright ward.

On May 26th, Probationer Noble was appointed Head Nurse in Miriam Ward.

On May 30th, Nurse Marriott left the Hospital on completion of her three years' training, and Probationer Achurch was appointed to succeed her as Head Nurse in Queen ward.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Constipation and Allied Intestinal Disorders. By A. F. Hertz. (Oxford University Press.) Price 10s. 6d.

This is one of the most original of the "Oxford Medical Publications," and, although it is upon a special branch of medicine, it appeals to the specialist and general practitioner alike. Constipation is an exceedingly prevalent disorder in these days of over-civilisation, and it is one which in many cases does not yield readily to treatment. This failure would appear to be due in great part to the fact that constipation is due to different causes which are not recognised. These causes must be determined and then removed by scientific treatment based upon sound physiological and pathological knowledge. No one recognises this more fully than the author, and in the first part of his book he has given a most valuable account of the physiology of the intestinal movements and of defæcation, based upon a series of investigations carried out during the last three or four years with the assistance of others at Guy's Hospital.

In later parts of the book the causes and symptoms of constipation are fully considered, especially in the light of the results obtained by examinations by means of the X-rays at various times after the patient had taken a meal containing bismuth. Treatment and a special part on the constipation of infants form the concluding chapters. The value of dietetic treatment is recognised and discussed, and the views of those who advocate operative treatment are criticised.

The book contains numerous original illustrations, indices of authors and subjects, and is well printed and bound, as are all the books which leave the Oxford University Press. There is little doubt that the author will have to prepare a new edition soon, when he might with advantage consider more fully insufficient muscular exercise and celibacy as factors in the causation of constipation.

[We deeply regret the unavoidable delay in the publication of this review.—Ed., G.H.G.]

Medical Treatment and Diet. By James Burnet. (John Currie, Edinburgh.) Price 3s. 6d.

This little handbook deals satisfactorily with the treatment of some of the commoner diseases. The author does not try to do more than repeat the ordinary text-book commonplaces, and offer them in a convenient form to the student. He gives as much space to the treatment of Addison's disease as to that of gastric ulcer, and more to Beri-Beri than to Bacil-

luria. Though we would prefer to say that the book is not bad, than that it is good, it answers its purpose as a Handbook of Treatment. In emphasising the value of diet, he in many cases seems to make unduly much of his subject.

The Medical Diseases of Children. By Reginald Miller. (Wright & Son, Bristol.) Price 12s. 6d.

There have lately come before us a large number of very good text-books on children, and this volume may well be added to the list. The author writes in a fresh, interesting and pleasing style, and the book is well arranged and paragraphed, so that the reader finds it easy to concentrate his attention, and as he reads, keep the thread of the subject in his mind at the same time. We would particularly commend his chapters on the commoner affections; these are very clear and to the point and are obviously the result of his clinical experience and not the mere repetitions of classical text-books. We liked particularly his chapter on infective diseases, but the book is good throughout.

It is fully illustrated (some of the illustrations are very good and clear; some do not seem to answer any very particular purpose), well printed, and pleasingly free from inaccuracies. Ætiology and pathology are well and scientifically treated, and debatable points are discussed fairly and clearly, and definite conclusions are, when possible, arrived at.

Lateral Curvature of the Spine and Flat-Foot. By J. S. Kellett Smith. (John Wright & Sons, Ltd.) Price 5s. 6d.

In this admirable little book the author deals with the treatment of lateral curvature of the spine by exercises, and by clear illustrations and descriptions enables the reader to grasp the principles by which such exercises should be governed. The book begins with a quotation from a work written by Pierre Dionis in 1707, and containing a remarkable description of the symptoms and treatment of scoliosis, or "gibbosity," as it is called. This is followed by a careful chapter on the causes of scoliosis, an adequate knowledge of which by the lay public would go a long way towards rendering any treatment, by exercise or otherwise, unnecessary. The author's analysis of the deformity is based upon careful experiment, and he deduces from this the fact that in all cases of more than one curve, when there is any doubt as to the method of employing any exercise, the *dorsal* curve should be treated, as being by far the more dangerous.

The part of the book dealing with Flat-Foot is not so satisfactory, in that no mention whatever is made of any necessity or indication for operative assistance to other forms of treatment. The book is excellently got up, and should be read by all who are called upon to treat early cases of scoliosis or flat-foot.

Materia Medica, Step by Step. By Arthur W. Nunn. (J. & A. Churchill.) Price 3s. 6d. net.

This book is intended as an introduction to the study of vegetable drugs to which, of old, the name Materia Medica was given, but which now is called Pharmacognosy. The scope of the book is confined to the syllabus of the Minor Examination of the Pharmaceutical Society, and there is too much evidence that the author intends to impress on his readers that the examinational test is the end of their studies; thus, on page 5, a certain distinction is emphasised because "questions are frequently asked with regard to them in examinations." The author acknowledges his indebtedness to the compilers of the *British Pharmaceutical Codex,* but it is a pity that he has not incorporated the results of work done since that volume was issued in 1907. For this reason some of the monographs do not represent our present state of knowledge. The descriptions of drugs are in some cases very scanty; colchicum seeds are described as "dark brown in colour and very hard." This would not distinguish them from cabbage seeds, for example. Exception can also be taken to some of the statements: page 3, elaterin is wrongly given as an example of a glucoside; page 2, the distinction between a glucoside and an alkaloid is stated to be that the former cannot be prepared artificially; page 7, the majority of essential oils have the formula C_{10} H_{16}; page 9, lævulose is an uncrystallisable principle.

The arrangement of a book of this kind should be a matter of great importance in order to bring together the facts which are related. For this reason one cannot congratulate the author on his adoption of the alphabetical arrangement of the dictionaries. In the present case it is one which is not calculated to rescue the subject from becoming a mass of disjointed facts. The book is well printed and of convenient size.

The Chemistry of Synthetic Drugs. By Percy May. (Longmans, Green & Co.) Price 7s. 6d. net.

The object of the present volume is to excite the interest of chemists in an interesting branch of their subject. The current views of different writers as to the mode of action of drugs on the living organism are stated, and the effect of the influence of chemical constitution on physiological action is very fully considered. Attention is directed to the effect of different radicles and to stereoisomeric differences. Free use is made of graphical formulæ, and by their means it is easy to follow the steps in the various syntheses. The recent arsenic compounds are described, and the very serious objections that belong to some members of this class are discussed. Among the best chapters in the book are those dealing with cocaine and its substitutes, and the account of the drugs allied to epinephrine. A useful glossary of certain chemical and medical terms is given.

A Practical Guide to the Newer Remedies. By J. M. Fortescue-Brickdale. (John Wright & Sons.)

This is an attempt to pass in review those newer remedies, the composition of which is known and on which some pharmacological investigation has been conducted. A volume of this kind is of great value because of its disinterested character in pointing out in what respect the claims of the manufacturer have been substantiated by independent workers. For this purpose references are given to the original papers, so that those who wish to pursue the subject further may do so. In some cases attention is directed to the small number of cases on which the claims of the drug are based. A useful feature of the book is the account of the physical properties of the preparations which will enable the prescriber to present them in a suitable form.

Neurological Out-Patients.

The following cases were shown at Dr. Hertz's demonstration:—

Boy, æt. 16, was brought up for weakness in both legs. This had come on gradually during the last 9 months. With the exception that his walk appeared rather uncertain, there was nothing very noticeable about it. There was, however, definite motor weakness of both legs. The knee-jerks were exaggerated; both plantar reflexes were extensor, but there was no ankle clonus. Abdominal reflexes were absent. The diagnosis thus far, then, was spastic paraplegia, there being no impairment of sensation.

The boy's mode of answering questions directed attention to his speech. This was slow and monotonous. His father stated it had become altered some three months ago. A rough examination showed no alteration in the visual fields, but a very wide lateral nystagmus was present on looking to either side.

These additional facts brought the diagnosis to disseminated sclerosis. There was no intention tremor, the boy being able to write and feed himself as well as ever.

The prognosis was bad for two reasons: First, the onset at so young an age; and secondly, the rapid course which the disease had run to bring about the above condition within 9 months. At the same time, temporary improvements followed by relapses are to be remembered as characteristic of this disease.

The next case may be compared with the above:—

Woman, æt. 24, came up for double vision which had come on quite suddenly ten days previously. On examination there was found to be complete paralysis of the left external rectus, and that owing to the unopposed action of the left internal rectus, the left eye was slightly turned inwards and thus resulted in diplopia. The patient's nervous system was normal in every other respect.

Both the age of the patient and her symptom, *i.e.*, paralysis of the external rectus, pointed to disseminated sclerosis in an early stage; a history of temporary diplopia, occurring two or three years before the onset of paraplegic symptoms, being a not uncommon thing in disseminated sclerosis. However, in this particular case a Wassermann test was done, and proved to be positive. The lesion was, therefore, a specific one which had picked out the sixth nerve, leaving the third nerve, which syphilis usually chooses, unaffected.

W. J.

Sport.

Cricket.

GUY'S v. GRANVILLE.

Played at Honor Oak Park on May 24th. Guy's won the toss and batted first, scoring 205. Of these, Kennedy made 63 and Hunôt 67 not out. The sequence of bad luck was nearly broken, but Granville won a close game by 10 runs.

GUY'S.

A. C. Hancock, c & b King	31
G. Dinan, b Edwards	0
R. S. Kennedy, b Edwards	63
B. F. Sampson, c Platt, b King	15
F. C. Hunôt, not out	67
A. H. Harkness, b Edwards	9
H. N. Purdon, b Edwards	3
A. B. Bond, b Edwards	4
G. Gripper, b Edwards	1
J. E. Rhys Evans, b Edwards	2
J. T. T. Forbes, c & b Edwards	0
Extras	10
Total	205

GRANVILLE.

S. Platt, c Bond, b Harkness	41
J. O. Anderson, c Dinan, b Kennedy	11
P. L. Lincoln, c Kennedy, b Sampson	8
C. E. C. Kendle, b Sampson	24
A. S. Johnston, c Gripper, b Evans	22
M. M. Munden, lbw, b Evans	7
M. D. Broome, c Evans, b Kennedy	25
—. Edwards, b Sampson	51
P. P. Lincoln, c Hancock, b Harkness	19
D. D. Steven, b Harkness	0
—. King, not out	6
Extras	1
Total	215

GUY'S v. BEXLEY ASYLUM.

Played at Bexley on May 27th. Guy's won the toss and batted first. Hancock made 64, and Bond played a useful little knock of 20. Bexley, however, knocked off the runs for 4 wickets.

GUY'S.

A. C. Hancock, c Williams, b ——	64
G. Dinan, lbw, b Goddard	7
A. M. Zamorra, c Goddard, b Keenan	1
R. M. Veale, c Joliffe, b Keenan	7
F. C. Hunôt, b Keenan	8
A. F. Rook, lbw, b Goddard	1
R. S. Kennedy, c & b Keenan	0
A. B. Bond, c Rolf, b Williams	20
H. N. Purdon, c Joliffe, b Everest	4
J. E. Rhys Evans, not out	7
J. T. T. Forbes, b ——	15
Extras	10
Total	144

BEXLEY.

A. B. Goddard, c Veale, b Kennedy	7
W. Pace, c Evans, b Hancock	25
H. J. S. Mitchell, c Bond, b Forbes	69
A. Joliffe, b Forbes	46
R. Lunn, c Bond, b Hancock	9
C. P. Keenan, run out	7
Dr. Haycraft, c Bond, b Forbes	4
Dr. Evans, lbw, b Rook	4
J. Williams, not out	38
G. Everest, b Forbes	5
D. Rolfe, b Rook	33
Extras	16
Total	263

GUY'S v. THESPIDS.

Played at Honor Oak Park on June 2nd. The Thespids batted first and made 212, but Guy's were able to top this, making 267 for 7 wickets. Of these, Harris made 93 and Ozanne 54, but the latter was somewhat lucky; Harkness quickly knocked up 39. Harris took 6 wickets for 82; Harkness bowled well, but did not come out with a very good analysis.

THESPIDS.

R. Horton, b Harris	20
R. Barnett Smith, b Harkness	2
H. A. Rees, b Harris	5
E. D. Bisgood, b Harris	32
Guy Struthers, c Harkness, b Harris	15
G. Tearle, b Harkness	11
B. Egerton, c Kennedy, b Harris	35
B. L. Bisgood, b Rhys-Evans	15
M. A. Green, c Kennedy, b Harris	25
H. A. Sherriff, not out	28
Extras	24
Total	212

GUY'S.

A. M. Zamorra, c B. L. Bisgood, b Sherriff	11
G. Dinan, b Sherriff	5
R. S. Kennedy, b Egerton	20
A. B. Bond, st Green, b Sherriff	0
F. C. Hunôt, b B. L. Bisgood	24
—. Harris, b E. D. Bisgood	93
R. Ozanne, st Green, b E. D. Bisgood	54
A. H. Harkness, not out	39
H. N. Purdon, not out	5
J. E. Rhys Evans, did not bat	—
J. T. T. Forbes, did not bat	—
Extras	16
Total (for 7 wickets)	267

GUY'S v. THE PAST.

Played at Honor Oak Park on June 3rd. Guy's won the toss, and batting first, made 195. Of these, Rook was responsible for 48 and Scott 41. Bookless was the most successful bowler for The Past, with 7 wickets. The Hospital took their second victory, though Langdale and Wyatt at one time looked very dangerous, making 60 and 47 respectively. Rook and Fawcus bowled well, the former 2 for 65 and the latter 6 for 32.

GUY'S.

A. C. Hancock, lbw, b Bookless	27
G. Dinan, b Bookless	0
R. S. Kennedy, b Morres	12
R. Ozanne, c Langdale, b Bookless	1
F. C. Hunôt, c Wyatt, b Bookless	0
A. F. Rook, b Bookless	48
A. H. Harkness, c Bookless, b Wyatt	16
M. Scott, b Bookless	41
H. N. Purdon, c & b Morres	14
R. A. Fawcus, c Langdale, b Bookless	18
J. T. T. Forbes, not out	1
Extras	17
Total	195

THE PAST.

H. G. Gibson, c Fawcus, b Rook	2
F. Morres, c Dinan, b Harkness	17
H. M. Langdale, b Fawcus	60
H. D. Wyatt, b Rook	47
J. S. Bookless, lbw, b Fawcus	7
M. M. Munden, b Fawcus	1
C. H. Fagge, c & b Fawcus	2
W. P. Vicary, b Fawcus	7
R. S. de C. Bennett, b Fawcus	0
V. Townrow, not out	3
Extras	14
Total	160

GUY'S v. CROFTON PARK.

Played at Honor Oak Park on June 5th. Guy's won the toss and batted first. The feature of the game was a splendid second wicket partnership of 190 by Kennedy and Bond. Kennedy took 112, made in splendid style, hitting hard all round the wicket, and among his runs were included two 6's, three 5's, and fourteen 4's. Bond made him an excellent partner and took 84, though once, we're afraid, slip was sleeping. Guy's declared at 266 for 7 wickets. Crofton Park on going in were dismissed for a very small total, thanks to some good bowling by Rook and Fawcus, who bowled unchanged, and took 4 and 6 wickets respectively. The tide has changed, and we won "hands down." This is extremely pleasing with the Cup Ties so close, when we meet our opponents of the Final last year—Middlesex.

GUY'S.

A. C. Hancock, c & b Day	0
A. B. Bond, b Bradshaw	84
R. S. Kennedy, lbw, b Bradshaw	112
R. Ozanne, c Glass, b Bradshaw	7
F. C. Hunôt, c Barr, b Pearson	28
A. F. Rook, st Theobald, b Bradshaw	14
G. W. M. Andrew, not out...	7
A. H. Harkness, c Theobald, b Barr	8
H. N. Purdon, did not bat...	—
R. A. Fawcus, did not bat	—
J. T. T. Forbes, did not bat	—
Extras	6
Total (for 7 wickets)	266

CROFTON PARK.

T. F. Theobald, c & b Fawcus	17
R. D. Barr, b Rook	9
W. E. Cotton, lbw, b Fawcus	0
H. Pearson, b Rook	1
E. Glass, b Fawcus	1
J. Day, b Rook	10
A. Cox, c & b Fawcus	3
E. Bradshaw, b Rook	6
A. R. Partridge, not out	9
G. Brierley, st Kennedy, b Fawcus...	1
C. Collins, b Fawcus	3
Extras	4
Total	64

Hockey.

Season 1910—1911.

The following officers were elected at the Annual Meeting of the Hockey Club at the beginning of the season:—President, Mr. F. J. Steward; Captain, L. Bromley; Vice-Captain, F. Kahlenberg; Hon. Secretary, O. G. Morgan.

The season has again been in every way a great success. The team, though not always at full strength, has won the great majority of matches, and has wound up with a highly meritorious victory in the Inter-Hospital Tournament, the opposing St. Bart.'s team being the strongest they have put into the field for many years. The half-backs were undoubtedly the mainstay of the side, and by their able defence and excellent feeding of the forwards contributed very largely to the victory. The forwards themselves played a most dashing game, and considering the great strength of the opposing defence, their combination and shooting were admirable. Mention must also be made of the goal-keeping of Cutts, who, although new to the position, performed there with great credit. The match itself, after a start which looked bad for our prospects, ended in a win for Guy's by 2 goals to 1, both of our goals being shot as a result of penalty corners, one by Poulton, the other by Graham.

The second half was mostly in our favour, mainly owing to the continued excellence of the halves, who never tired, and the clean centring and pace of Birks at outside right.

The previous Inter-Hospital Matches against the London and St. George's Hospitals were won in most decisive fashion, the former being 4—2, the latter 5—1 in our favour. The final was witnessed by Mr. Steward and Mr. Fagge, both of whom have always taken the keenest interest in the doings of the club. A small but enthusiastic band of spectators also witnessed a game which was always exciting, and helped materially by their stimulating shouts towards its successful termination. After the match the team was most kindly entertained by Mr. Steward at the Trocadero. Following on a most excellent dinner, which will not readily be forgotten by those present, a vote of thanks was proposed to Mr. and Mrs. Steward for the great interest which they have shown in the club. Another most important toast was that of the departing members of the team. Our captain, especially, will be greatly missed, both socially and in the field, where his dashing and vigorous style of play has always been most effective. Poulton, Thomson and Kahlenberg will all leave vacancies which will be most difficult to fill.

This is the first year of the new Hockey ground, and the club has played extremely well throughout the season. The game is undoubtedly becoming increasingly popular, and there is no doubt that the possession of a ground has helped materially towards this. It only remains to be hoped that, as we have won the Inter-Hospital Tournament for the last five years, next year may also bring success.

The team was—C. L. Cutts (goal); O. G. Morgan. R. M. Matson (backs); G. Y. Thomson, F. H. Kahlenberg, A. F. Venables (halves); A. H. Birks, L.A. Graham, E. P. Poulton, L. Bromley, G. Bulleid (forwards).

Lawn Tennis.

GUY'S 1ST VI. v. CAIUS COLLEGE, CAMBRIDGE.

Played at Cambridge on Saturday, May, 27th, and resulting in an easy victory for us by twelve matches to three.

SINGLES.

W. R. Reynell beat K. Hartree, 6–0, 6–1.
A. S. Roe beat D. A. Brownsword, 6–4, 6–0.
R. Curle beat A. R. Marshall, 3–6, 6–4, 6–1.
R. H. Lucas beat A. G. Sanctuary, 6–1, 6–1.
G. C. Covell beat R. C. Hewitt, 7–5, 8–6.
H. Sharpe beat D. Steward, 6–4, 6–2.

DOUBLES.

Roe and Reynell beat H. G. Bache and K. Hartree, 5–7, 6–2, 7–5; beat D. A. Brownsword and A. C. Jacob, 6–3, 6–0; J. M. Williamson and W. C. Gingell, 6–2, 6–1.

Curle and Lucas beat Brownsword and Jacob, 6–3, 6–3; lost to Bache and Hartree, 2–6, 0–6; lost to Williamson and Gingell, 5–7, 6–1, 3–6.

Covell and Sharpe beat Williamson and Gingell, 6–3, 10–8; beat Brownsword and Jacob, 6–3, 6–3; lost to Bache and Hartree, 5–7, 3–6.

GUY'S 1ST VI. v. BALLIOL COLLEGE, OXFORD.

Played at Oxford on Saturday, June 3rd, resulting in an easy victory for us by nine matches to love. Score:—

Roe and Reynell beat A. Leeper and R. Wingate, 6–3, 6–1; beat J. Champreys and A. Johnston, 6–2, 7–5 beat F. M. Potter and J. F. L. Fyson, 6–3, 6–4.

Curle and Lucas beat Potter and Fyson, 6–8, 6–3, 6–3; beat Leeper and Wingate, 6–3, 6–3; beat Champreys and Johnston, 6–3, 6–3.

G. C. Covell and B. C. Covell beat Champreys and Johnson, 7–5, 6–4; beat Potter and Fyson, 6–3, 6–4 beat Leeper and Wingate, 6–4, 7–5.

GUY'S 1ST VI. v. HILLSIDE.

Played on Monday, June 5th, resulting in a win for us by five matches to four, Lucas and Curle winning their three matches. Reynell and Sharpe were unable to play, unfortunately, as this was the last match before the Cup ties. Score:—

Roe and Covell lost to F. D. Fancourt and F. E. Cox, 5–7, 9–7, 2–6; beat F. Provost and Levisseur (sub.), 6–1, 6–2; lost to W. D. List and T. H. Jackson, 4–6, 7–5, retired.

Curle and Lucas beat List and Jackson, 7–5, 6–4; beat Fancourt and Cox, 6–3, 6–4; beat Provost and Levisseur (sub.), 6–2, 6–0.

G. W. King and J. Totton beat Provost and Levisseur (sub.), 6–3, 6–4; lost to List and Jackson, 2–6, 3–6; lost to Fancourt and Cox, 3–6, 6–4, 3–6.

GUY'S 2ND VI. v. DOWNING COLLEGE, CAMB.

This match was played at Cambridge on May 27th, and resulted in a win for us by seven matches to six, after a very close struggle.

GUY'S 2ND VI. v. HERTFORD COLLEGE, OXFORD.

This match, played at Oxford on June 3rd, resulted in a win for Hertford College by eight matches to seven. C. E. Petley and K. M. Woodruff are to be congratulated on winning four out of their five matches, especially as they turned out at the last minute in place of H. L. S. Griffiths and H. S. Groves.

Papers by Guy's Men.

Richard Bevan, L.R.C.P. Lond., M.R.C.S. Eng., D.P.H.: Notes on a case of Gastro-Enterostomy after fifteen years.—*Lancet*, 27th May, 1911.

R. P. Rowlands, M.S., F.R.C.S., Assistant Surgeon, Guy's Hospital: Some Complications of Gastric Ulcer and their Treatment.—*Practitioner*, 11th June, 1911.

G. A. Wright, F.R.C.S., Senior Surgeon to the Royal Infirmary, Manchester; and another: Gangrenous Pancreatitis; Operation; Recovery.—*Lancet*, 3rd June, 1911.

Marriage.

ALLAN—GUNN.—On Thursday, 1st June, at Trinity Presbyterian Church, by the Rev. J. A. Wilson, M.A., Douglas, son of the late Sir William Allan, of Scotland House, Sunderland, to Mildred Hermine, daughter of the late Scott Gunn, Esq., of Thornhill Park, Sunderland.

Death.

THOMPSON.—On April 6th, at Plas-Iolyn, Rutbin, North Wales, Jenny Thompson (late Nurse Jenny Thomas, of Guy's Hospital and Guy's Institute), aged 36.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the GAZETTE *can offer are merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs.*

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

June.

Mon. 26. Clinical Lecture by Mr. Mollison, at 1.15 p.m.
Cricket—1st XI. v. Surrey Club and Ground.

Tues. 27. Inter-Hospital Athletic Sports.

Wed. 28. Swimming Entertainment, at 7.45 p.m.
Cricket—1st XI. v. Forest Hill (Home).

Thur. 29. Messrs. Dunn and Rowlands' Take-in (Messrs. Kahlenberg and Roe).

Fri. 30. Water Polo v. Old Blues (Home).

July.

Sat. 1. *Cricket—1st XI. v. Wanderers (Home).*

Mon. 3. Clinical Lecture by Mr. Bellingham-Smith, at 1.15 p.m.
2nd M.B. (Lond.) and Final M.D. & M.S. (Lond.) Examinations begin.

Tues. 4. Final Conjoint Examination begins.
Hospital Garden Party and Prize-giving.

Wed. 5. Cricket—1st XI. v. Old Whitgiftians (Home).

Thur. 6. Sir Alfred Fripp and Mr. Turner's Take-in (Messrs. Stout and Fox).

Sat. 8. Cricket—1st XI. v. Croydon Mental Hospital.

Passim.

IN the Coronation list of Baronets we notice with pleasure the name of Dr. James Fredk. Goodhart, L.L.D., C.M., F.R.C.P. Sir James Goodhart was born in 1845. He was appointed Assistant Physician to Guy's Hospital in 1877, became Full Physician in 1886, retired in 1898, and was appointed to the Consulting Staff of the Hospital in 1899. A fine clinician and pathologist, he possesses a warm-hearted geniality which enables him to win the confidence and love of all with whom he comes in contact, and especially of children. His many friends and admirers will be delighted at this fitting tribute to a great Guy's man, a brilliant physician, and a warm heart. We hope to publish an appreciation of Sir James Goodhart in our next issue.

DR. FRIEDRICH VON MÜLLER, the distinguished Professor of Medicine in the University of Munich, will deliver a Clinical Lecture in the Physiological Theatre at Guy's on Thursday, June 29th, at 3 p.m. Professor von Müller is the head of the most popular medical klinik in Germany; he is a brilliant lecturer, and speaks English fluently. All Guy's men, past and present, are invited to attend, and it is hoped that a large audience, worthy of the occasion, will be present. Professor von Müller is visiting London in order to give evidence on the German methods of medical education before the Royal Commission on University Education in London, and we believe that his only public appearance while in England will be at Guy's Hospital. The lecture will be on some subject connected with renal or pulmonary disease, and will be illustrated by lantern projections of microscopical preparations.

WE are continually being told that the GAZETTE is not what it was. Perusal of old numbers somewhat lessens our concern at this statement, especially when we remember that nothing ever is now what it was in the past. Nevertheless, allowing for the inevitable glamour which surrounds the past when viewed from the present, we are bound to admit that the

GAZETTE does not receive that support from students and nurses at the hospital that it did. Some men read the GAZETTE, some even tell us what they dislike in it; but few contribute to it, and fewer still make any suggestions for its improvement. While caring little for purely destructive criticism, we are particularly desirous of suggestions, and would urge our readers to send us any ideas they may have for the GAZETTE in general, and for Passim in particular.

ANYONE who has attempted to read up the literature on any subject in Medicine or Surgery cannot but be struck with the remarkable length at which medical writers describe the most unimportant of discoveries, or the most improbable of theories. The medical press of the day teems with lengthy papers, full of repetitions, whose essentials could often be adequately expressed in a few lines. This trouble is not a recent one, for Sir Astley Cooper was known to remark to a medical journalist of his time, "Sir, the writers are becoming like seamen who neglect the prominent landmarks for taking useless soundings, and make absurd calculations of no use to anyone, and liable to run the unlucky ship on a rock." Further, in a Biography of the Medical Profession, written in 1874, we came across the following passage:—

> "It is related that Blake, the most imaginative of painters—Fuseli himself not excepted—once saw the ghost of a flea, and sketched it. Had he belonged to the 'pre-Raphaelite School' of the present day, it is probable that he would have made the 'ghost' merely a feature in an elaborate production of his easel. Perhaps he would have placed it on a rich blanket, on a superb bed, in a gaudily-furnished room; every thread of the blanket, every line of the bed-tick, every object—even the most minute—elaborately 'worked-up;' the 'poor ghost,' like that of Hamlet's father, being invisible, or only seen by the gifted eye. What would have been the result? The great sketch of the flea, so wonderfully portrayed by the painter, would have been 'nowhere.' Writers on Medicine and Surgery of the present day get hold of the 'ghost of a fact,' and they theorise upon it to such an extent, and with such elaborate minuteness that we are mystified, and looking for the meaning, as we do for that in Gratiano's talk, find to our cost that it is 'an infinite deal about nothing.'"

THE result of this exuberance of litterature is that it is almost impossible to keep abreast with the recent advances of science. The time spent in sifting the essentials from the padding would be sufficient for the reading of many books, and the perusal of pages filled with:

> "Fancies to show the stretch of human brain,
> Mere curious pleasure or ingenious pain,"

is so wearisome to the reader that he is led to leave many important papers unread. The fault lies mainly in that entire absence of style which makes the majority of medical works such very painful reading. Detail which is merely explanatory is interesting and attractive, but detail which usurps the place of the essential is wearisome in the extreme. It is true that the experiments or cases upon which explanations or theories are built, must be fully stated; nevertheless such might be included in an appendix for reference only, and not be placed side by side with the main points of the treatise.

THE Annual Garden Party and Prize-giving will take place at the Hospital on July 4th. The Rt. Hon. Alfred Lyttelton, K.C., M.P., M.A., has kindly consented to distribute the prizes, and all who have heard the late Secretary of State for the Colonies speak will look forward with pleasure to this opportunity of hearing him again. We would urge upon men the desirability of wearing academic costume on this occasion. Of late years this custom has been less and less observed, and for reasons of mere picturesque effect, as well as for many others, it is a pity that it should be allowed to lapse in any way.

WE understand that a Garden Party to the Nurses, Staff and Residents of Guy's Hospital, is to be given by Sir Everard Hambro, K.C.V.O., on July 11th and 12th at Hayes Place, Kent. Sir Everard Hambro has been a Governor of the Hospital since 1887, and has always shown great interest in nursing matters. He is chairman of the Royal National Pension Fund for Nurses, and is Treasurer of the King Edward's

Awaiting the King.

Nursing Home at Biarritz, for the successful management of which he has largely been responsible.

IN our Correspondence Columns will be found a letter from "A member of the Staff," acknowledging money subscribed through the GAZETTE for an old Guy's man. The case is one deserving of the greatest sympathy, and we would appeal to our readers for further help, so that the sum of money at present available, which is a very small one, may be supplemented. The Editor will be pleased to give further particulars to anyone interested in the case.

THE Treasurer's Gold Medals in Clinical Medicine and Clinical Surgery have been awarded to Mr. E. P. Poulton and Mr. G. T. Mullally respectively, both of whom we heartily congratulate on their well-merited success. We would also congratulate Mr. H. Chapple and Mr. A. H. Crook who were the only successful candidates at the recent M.C. Cambridge examination.

THE Annual Gala of the Swimming Club is to be held at the Southwark Baths on the evening of June 28th, at 7.45 p.m. This entertainment is always a popular event, and should be especially so this year, as the Inter-Hospital swimming matches are to be decided during the evening. We hope that everyone who possibly can will be present to support the Guy's competitors.

THE Inter-Hospital Sports are to be held at the Stamford Bridge Ground on Tuesday, June 27th. There appears to be a very reasonable prospect of Guy's winning the Shield this year, after having narrowly missed doing so on the last three occasions. Admission will be by ticket, and the prospect of close and exciting finishes should attract a large gathering of spectators.

OWING to the Coronation Holidays the present number of the GAZETTE goes to press earlier than usual. Consequently several articles, etc., have had to be held over to the next number.

Appointments.

Medical School Appointments.

The following appointments have been made by the House Committee upon the recommendations of the Medical Committee:—

House Physicians.—C. C. Tudge (Dr. Pitt); G. Maxted (Dr. Shaw).

House Surgeons.—F. D. Saner (Mr. Lane); G. Y. Thomson (Mr. Dunn).

Out-Patient Officers.—H. W. Barber, J. A. Edmond, A. S. Roe, R. Stout.

Assistant House Surgeons.—G. T. Mullally (Mr. Steward); G. R. Hind (Mr. Fagge); H. T. Depree (Mr. Rowlands); W. E. Fox (Mr. Turner).

Obstetric Resident.—F. Kahlenberg.

Clinical Assistant in Throat Department.—T. B Layton.

Clinical Assistant in Ophthalmic Department.—L. Mandel.

Clinical Assistant in Genito-Urinary Department.—L. Mandel.

The following appointments have been made by the House Committee upon the recommendation of the Dental Council:—

Dental House Surgeons.—G. W. E. Holloway, H. L. Messenger, G. B. Pritchard.

Assistant Dental House Surgeons.—E. W. Bacon, H D. Shore, D. Wain.

Civil.

HARVEY, C. P., M.R.C.S., L.R.C.P., has been appointed Certifying Surgeon under Factory and Workshop Act for the Witney District, County of Oxford.

LOWER, C. A., L.S.A., L.M.S.S.A. Lon., has been appointed District Medical Officer, Pocklington Union.

Guy's Hospital Rifle Association.

The first shoot for the Armitage Cup took place at Bisley on Wednesday, June 7th. The weather was fine, with a varying wind, which troubled the competitors. Scores:—

H. Hogben	95
S. E. Johnson	85
G. W. Elkington	85
J. E. Rhys Evans	80
G. A. Blake (Captain)	79
E. J. Cooke	70
Total	494
St. Bart.'s	480

H. HOGBEN, Hon. Sec.

An Anomalous Case of Appendicitis.

BY PHILIP TURNER, M.S.

THERE is not infrequently in cases of appendicitis some difficulty in diagnosis, especially when the trouble is sub-acute or chronic. It is, however, very unusual to come across such anomalous symptoms and physical signs as were shown by the following patient:—

Mary G., æt. 28, a nurse at one of the London infirmaries, was admitted into Mary, under Dr. Hertz, on March 25th, 1910, for abdominal pain and jaundice. Her previous history was unimportant with the exception that two years previously she had had an attack of gastritis, for which she was kept in bed for two weeks, and for a time was only able to take peptonised milk. Her present trouble commenced on March 13th, until when she was in good health except that for a few days she had had a slight cold. On that day she was suddenly seized with acute abdominal pain, which commenced in the epigastric region and then radiated to both loins and to the shoulders. The attack lasted for an hour, and was accompanied by vomiting. The pain recurred at frequent intervals in the course of the next four days, during which she vomited several times. On March 15th she became jaundiced. On March 18th there was another attack of severe pain, while yet another occurred the day before admission.

Dr. Stebbing, who attended her before admission, gave the following details:—There was slight pyrexia throughout the whole attack, the temperature varying from 99° to 101°. The pain, which was so severe that injections of morphia were necessary, was always in the epigastric region, but on some occasions was referred to the right, on others to the left side. Rigidity and tenderness were present in the upper half of the abdomen, and in the intervals of acute pain there was a tender area in the epigastric region just to the right of the mid-line. No tumour was at any time palpable. The bowels were constipated, and only acted after enemata. The urine contained much bile, and the fæces were clay-coloured. There was no leucocytosis.

On admission there was tenderness in the upper part of the epigastric region, most marked to the right of the mid-line. On percussion there was dulness on the *left* side from the level of the sixth rib to the costal margin, the stomach resonance being very much diminished. The cardiac impulse was in the fourth intercostal space internal to the nipple line. The jaundice had by this time practically cleared up, though the sclerotics had a decided yellow tinge. The urine was of high specific gravity (1032), but contained no bile or other abnormal constituents. There was no tenderness or rigidity of the spine, and the reflexes were normal. On March 26th she had a very severe attack of pain in the left epigastric region, with rigidity of the upper half of the abdomen. Dr. Hertz thought that there was most probably a subphrenic abscess caused by a leaking gastric ulcer, and I was asked to see her with a view to operation. In the short time which elapsed before I saw her, however, a very remarkable change had happened. The pain had disappeared, the rigidity had passed away, and also the area of dulness had markedly diminished. We therefore decided that immediate operation was not necessary. The following day she was skiagraphed, but nothing was found. From that time she continued to improve; there was no return of the pain, the temperature remained normal, and she gained in weight. Several times, however, the area of dulness was noticed on the left side. She left the hospital on April 27th. No definite diagnosis was made, but the lesions discussed were gall-stones, gastric ulcer, duodenal ulcer, sub-phrenic abscess from one of these causes, and pancreatitis. A careful watch was kept for some thoracic or spinal lesion, but nothing to suggest these was ever found. It may be remarked here that the patient was not a neurotic woman, and that she looked very ill during the attacks of severe pain.

She was re-admitted into Clinical on June 29th for another severe attack of abdominal pain. Since she had left the hospital she had never been well, and had made several ineffectual attempts to resume her duties as a nurse. On June 12th she had a severe attack of pain of a similar character. Since then there have been several attacks lasting from a few hours to a day or two. The pain has been usually accompanied by vomiting, which has no relation to food. The present attack occurred at 2 a.m.; the pain has been very severe, and has been experienced in the epigastric region and in the right side of the back. There has been no further jaundice.

On admission.—T. 100°, P. 116, R. 28. The upper half of the abdomen was rigid and tender, and an area of dulness was now found on the left side extending from the sixth rib to below

the costal margin. There was a good entry of air and no adventitious sounds were heard in the lungs. A blood count showed no leucocytosis. On June 30th, it was determined to explore for a sub-phrenic abscess. A portion of the tenth left rib was excised and the diaphragm exposed. An exploring needle failed to find any pus, so a small incision was made in the diaphragm through which the finger could be introduced. No induration or adhesions could be felt and everything appeared normal. Ten days later the wound had healed uneventfully and the stitches were removed. There had been during this time several attacks of abdominal pain and vomiting. From the 15th to the 28th July there was pyrexia, the temperature reaching 103° on the latter date. A severe attack of pain occurred on the 21st, and the patient seemed and looked very ill. Another skiagraphic examination showed nothing abnormal. On August 2nd an exploratory laparotomy was decided on. The incision was made in the epigastric region through the right rectus over the area of the maximum tenderness. The gall bladder and and bile ducts were first examined, but no calculi were found, the stomach, duodenum, pancreas, and sub-phrenic region were then successively investigated, but were all quite normal except for a small adhesion in the region of the first operation, As a last resource the cæcum was drawn up into the wound. The appendix was long, thick, with a dilated distal portion which contained concretions, while it was adherent to its mesentery and to the cæcum. It was accordingly removed and when cut up three concretions were found and the mucous membrane of the distal portion was ulcerated. The cæcum occupied the normal position; it certainly was not fixed as it could be readily drawn into the epigastric incision. The appendix was situated to its inner side and appeared to have been directed towards the umbilicus—a common position.

The condition of the appendix was of course quite compatible with numerous attacks of appendicitis, but it was open to question whether this was the cause of the patient's symptoms. However, after the operation the condition rapidly improved. The temperature only on two occasions during her subsequent stay in hospital touched 99°, the pain completely disappeared, there was no further vomiting, and she soon looked and felt very much better. Her appetite returned and she put on weight, and left the hospital on August 29th feeling practically well. When seen six weeks later she was looking and feeling very well.

I saw Dr. Stebbing a week or two ago, and he informs me that her condition has been excellent since she left the hospital. There has been no return of the pain, and since resuming her duties as a nurse shortly after leaving Clinical she has not had to go off duty at all. There can thus be, I think, no doubt that the appendix was the sole cause of all her trouble.

The most puzzling and misleading symptom was undoubtedly the jaundice. It is very difficult to explain, but I think the most probable explanation is that it was an independent catarrhal jaundice. The most puzzling physical signs were the dulness in the left hypochondriac region, and the displacement of the cardiac impulse. The dulness certainly varied from time to time, but on several occasions it was very marked. I can make no suggestion as to its cause. The situation of the pain, too, is very difficult to explain. If the cæcum and the appendix have some unusual position, the pain is frequently experienced in the region occupied by the appendix, but in this case the appendix certainly was far from the epigastric region, for the cæcum occupied its normal position in the iliac fossa and the appendix was situated to its inner side. Though Dr. Shaw, Dr. Fawcett, and Dr. Hertz saw the patient in addition to Dr. Stebbing, myself, the Clinicals, and many others, the appendix was, to the best of my belief, never even suggested in the numerous discussions about the diagnosis.

Pass List.

Royal College of Surgeons of England.

MAY, 1911.

FINAL FELLOWSHIP EXAMINATION.

Bevers, E. C. | Greene, C. W.
Crook, A. H. | Miller, W. H.
Smith, D. Wilberforce.

PRIMARY FELLOWSHIP EXAMINATION.

Bookless, J. S. | Meyer, H. L.
Lee, H. | Smith, A. J. E.
Trethowan, W. H.

Change of Address.

W. A. Dredge, L.D.S. Eng., to 10, Bryanston Street, Portman Square, W.

T. Morgan, M.R.C.S., L.R.C.P., from "Brynteg," Garnant, Carmarthenshire, to The Colony, Llandovery, Carmarthenshire.

Arthur Miller, M.D., B.S., from Falkland, Sutton, to 46, Westminster Palace Gardens, S.W.

Some Aspects of Malocclusion.

Paper read before the Dental Society by W. S. OLLIS.

Mr. PRESIDENT AND GENTLEMEN,—In dealing with such a subject as malocclusion it is impossible to lay before you a comprehensive review of it, for it is a subject far too large to be dealt with within the limits of one short paper. In addition, you are already familiar with its main principles, and so I wish to deal as little as possible with its classification and treatment; indeed, the only thing I dare say about treatment is to point out some mistakes I have made in the treatment of certain cases which it may be useful to avoid.

First, I want to mention the *objects in view* in the treatment of irregularities. They are:—

1. The restoration of occlusion so that the teeth may fulfil their proper functions.

2. The reduction of deformities and the restoration of facial proportions.

The importance of the first object needs no proof, but I hope to show that in order to restore lost facial proportion we must first secure perfect occlusion, because a condition of malocclusion is the most likely factor in producing a faulty distribution of those forces on which the harmony of the features depends. But before attempting this, we must decide how we are to judge whether the facial proportions of any patient are correct or not. First of all, I think it quite impossible to set up any criterion of beauty to which the ideal face must conform, because of the very great number of types and their mixture in all modern civilised nations. One has only to think of the existence of such a variety of types as the Greek, German, Latin and Semitic, and their innumerable modifications to be quite sure of this. So the only means left to us for determining what is normal for the individual is to consider the *balance of the features*. In other words, our ideas of proportion in any one feature must be guided more by a consideration of the degree of development of the remaining features than by trying to make them conform to an ideal type which may be quite foreign to the whole development of the individual.

Having decided as to how we must judge of facial harmony, I shall endeavour to discover on what this harmony depends. Briefly put, it will depend on the normal interaction of the forces influencing the features, or it is equivalent to the sum of these forces. Therefore, the excessive or diminished action, or the deflection of any one of these forces from the normal path, will result in a want of harmony. Now, each of the forces concerned is capable both of variation and deflection, some to a greater extent than others, so that a consideration of them will show which are most liable to these changes, and hence to which we must pay most attention.

Forces controlling features:—

1. There is in every individual an hereditary conservative tendency to reproduce all the parts according to ancestral type.

2. There are a number of factors tending to produce changes in the type which may be grouped together as "hereditary factors of variability." They may be apparently spontaneous or dependent on mixed ancestry, etc.

3. Varying conditions of nutrition will affect the parts concerned.

4. Mechanical strain causing an alteration in form or size either along typical or atypical lines.

5. The actual presence of the teeth in the jaws.

I will consider the first two forces, which we may call the hereditary ones, together. Variations produced by the interaction of these two forces alone are usually of little moment in suddenly upsetting the normal development, because, excluding freaks which are extremely rare, these variations are small in amount, and only tend to become of importance under the continued influence of natural selection. The only disturbing factor which arises from the action of these forces is the occurrence of supernumerary teeth.

Another abnormality which *might* occur as a result of these forces would be teeth too small for the completed arch. It seems reasonable that this might occur as the result of the independent variation of the teeth and the dental arches. I should be glad to know if anyone has observed an authentic case of such an abnormality.

It is often stated that the teeth are too large for the arch, but I believe this condition to be only apparent, and not a case in which teeth and arches have varied independently, but one in which the arch has been prevented from assuming its correct proportions by other circumstances that will be mentioned under mechanical strain.

3. Varying conditions of Nutrition.—The effects of this factor are very difficult to estimate: it may be of importance in producing want of development or excessive development of the mandible; and it may possibly be influenced by nasal obstruction. It is a factor almost beyond our control unless we could influence it, as I heard suggested here once, by putting patients with ill-developed mandibles under a course of chewing gum.

4. Mechanical Strain.—This is the most important force with which we have to deal, and I think you will see how powerful and variable a factor it is by noticing its action upon the skeleton in other parts. Everyone has noticed the prominence of the processes for the attachment of muscles in very muscular subjects. I remember a remark of Mr. Lane's to the effect that the skeleton might be regarded as the

crystallisation of lines of force, in other words, the bony parts tend to be built up along the lines of greatest strain. There is an excellent example of this in the case of the cervical vertebræ of the shoemaker given in Mr. Lane's paper in *The Journal of Anatomy and Physiology*, July, 1888. In persons following this trade the cervical vertebræ become peculiarly modified in response to the strain of certain habitual movements. Among other important changes the most remarkable is the building up of a mass of bone upon the lateral mass of the atlas on that side to which the head is tilted; this articulates with the jugular process of the occipital.

In patients with macroglossia, the whole mandible becomes bent by the pressure of the enormously enlarged tongue. It is well known how bone may be absorbed under the influence of pressure.

I think these few facts are enough to show that under the influence of mechanical strain bone may suffer the following changes:—

1. Existing elevations may be exaggerated.
2. Entirely new formations may be produced.
3. The whole bone may be bent.
4. Its normal curves may be intensified.

Now, I want to apply these principles to the bones of the face, on which facial harmony largely depends.

Under normal conditions the force exerted by the muscles of mastication is received upon surfaces which have been built up to accommodate it, and any change that this force may cause will be a change along typical and symmetrical lines, and therefore making for harmony. But it is a force peculiarly capable of deflection from its normal path by its action through the occlusal surfaces of the teeth. In the normal denture, with the cusps interlocking, this strain serves to retain all parts in their correct position, but *once given* the occurrence of any abnormality in the relations of the teeth, this force will be so deflected from its normal path as to affect the relations of all the teeth and their associated bony parts.

The strain received by the teeth is transmitted by them, through their apices, to the surrounding structures which are moulded in conformity to it. But if it is not normally received, it is not transmitted along the usual paths, and the surrounding bones will become modified so as to receive and support the strain along these new directions. From these remarks I think it will be quite plain to you that the statement I made in starting is correct, viz., that we must restore perfect occlusion in order to secure facial harmony, and this will mean not merely a nice even row of teeth, but, in addition, a change in the bones of the face from the abnormal to the normal. We must also infer that the face can never develop normally unless the occlusion is absolutely perfect.

Before going on with this, I had better give some actual examples of the way in which this force acts. Take the case in which the upper molars and premolars have erupted slightly lingually to the normal—instead of slightly overhanging the lower teeth, the lowers stand just outside the uppers. In this case the spreading action of the lower teeth upon the upper arch is lost, and the force of the bite tends to move the upper molars further inwards so as to make the upper arch still narrower. In addition, since action and re-action are equal, the lower molars will be moved buccally to normal, so that the result is an upper jaw narrow and ill-developed whilst the lower is unnaturally broad, giving the face a wide baggy appearance about the lower part. A further result of the narrowing of the maxilla is a want of development of the floor of the nose and the consequent tendency to impeded nasal respiration, thus completing the vicious circle.

Second example. Take another case in which the posterior lower teeth have been lost fairly early in life. As a result of constantly bringing forward the lower jaw so that the lower incisors may meet the uppers edge to edge in their effort to fulfil part of the function of the lost teeth, the lower jaw gradually becomes modified so that the edge to edge bite becomes fixed and finally exaggerated, and we then have a condition of *acquired* underhung bite. The change which takes place in response to the altered direction of the muscular force in this case probably takes place in the articulation. I think that this case is an example of another of Mr. Lane's axioms, viz., that the constant assumption of a position either of rest or activity leads first to its fixation and finally to its exaggeration.

This factor of mechanical strain, in addition to acting through masticatory effort, also acts by the pressure that the lips and cheeks exert upon the dental arches. Examples of this are familiar to you, but I should like to point out that in cases where a tooth has been lost or displaced from the arch, it is the constant action of this pressure upon the arches which leads to the closing up of the space left, and the consequent shortening of the arch upon that side. Suppose this shortening to take place in the lower arch at a time when the upper canine has not yet been pushed into the space ready for it from its labial position. The lower arch being thus shortened, it will be unable to exert its full spreading action upon the upper arch, which being acted upon by the constant lip pressure becomes correspondingly shortened and the space for the erupting canine becomes closed up, leaving it buccally placed. I think it will be clear to you that of all the factors in the development of the face that we have yet enumerated, this factor of strain is the most liable to deflection; it is largely dependent on normal occlusion, and we know how rare perfect occlusion is.

Apart from the question of muscular effort, the bones of the face are often subject to inequalities of mechanical strain from obstruction to nasal respiration. If one nostril be obstructed, the fall of pres-

sure on the obstructed side, produced by the suction of the air passing through the open nostril and pharynx, is equal to a pressure of half a pound on every square inch. In young animals in which the nostril on one side has been stopped up, the whole face on the occluded side suffers a want of development, so that the bones and sutures are asymmetrical. Nasal obstruction, then, must be a very potent factor in upsetting the normal development of the facial bones, including the maxillæ, a condition particularly favourable to the abnormal locking of the teeth which, in its turn, further affects the features by a displacement of the strain of mastication and lip or cheek pressure from its normal path along new directions with the results already indicated. Thus, a vicious circle is established.

5. Actual presence of teeth in jaws.—Before calcification has commenced in the parts of the jaws which are necessary to deglutition and respiration, a thin lamina of bone has already developed beneath the rudimentary tooth germs, so that the tooth germs and alveolar portion of the jaw are first in the field and must have some influence in mapping out the extent of the subsequent calcification. Therefore, the presence of these structures alone, before they become of use, must affect the development of the surrounding bones. This factor is not one which can have much effect on malocclusion. I have only included it for the sake of completeness.

Up to the present we have assumed the existence of some germ of malocclusion as one of the most important factors in producing facial inharmony. It is the first step in the deflection of a force the effects of which move in ever widening circles, until, from a condition in which the faulty relation is so small as only to be perceived by the eye of an expert, the deformity progresses so as to include many or all the teeth and the accompanying developments of bone dependent on their right directions. But occlusion itself is a part of the harmony of the face, so that the causes of faulty occlusion must themselves be capable of being interpreted in terms similar to those which I have used in dealing with the wider question of general facial harmony. I hope that no confusion will arise from the fact that malocclusion has already been shown to be the main means of causing facial inharmonies. It must be remembered that it is by no means the only cause.

The causes of malocclusion will come under two heads:—

First.—It may arise as a result of a variation or deflection of any one of the factors concerned in general facial harmony. Thus, it may be due to a want of development in the bones in which the teeth are implanted which was originally due to a displacement of the mechanical strain to which these bones are normally subjected. Thus, the malocclusion is the secondary result of the original displacement, and it will react upon the already abnormal bone so as to produce a further deformity.

Second.—It may arise as a consequence of other pathological conditions which are more or less accidental; and here it is often the primary cause of facial inharmony.

I shall not take all the causes of malocclusion that are known and treat them in detail, but simply give examples of each group into which the causes fall.

GROUP I.—Including all causes of malocclusion which are dependent on the same laws as the general facial inharmonies.

Nasal Obstruction.—This has been shown to produce a want of development in the maxilla due to a displacement of the normal mechanical strain. The cause of the case previously given in which the upper sixes erupted lingually, and later the premolars as well, was probably due to a narrow maxilla dependent on nasal obstruction. Where the upper molars and premolars have erupted lingually on one side only, the cause would probably be unilateral nasal obstruction on the affected side. I have seen such a case. This cause of malocclusion is a secondary result of displacement of the factor of mechanical strain. Habitual mouth breathing, no matter on what condition it depends is also given as a cause of malocclusion. The constantly open mouth causes the muscles of the cheeks to exert undue pressure, whilst the compensating pressure upon the upper arch from the tongue is lost. In addition, the atmospheric pressure which, in the closed mouth, is slightly negative, becomes positive, as is proved by experiment. Here this cause of malocclusion is a *primary* result of the displacement of mechanical strain.

Supplemental teeth may cause malocclusion. This is usually given as an example of atavism, and so must be considered here as an exaggeration of the conservative tendency to reproduce the ancestral type which was our first force. It may be considered, under these circumstances, as a force acting with increased abnormal strength.

Supernumerary teeth also cause malocclusion. This is an example of the increase in strength of the second force, a force tending to spontaneous variation. In these last two examples, the malocclusion is the direct result of variations in the factors usually making for facial harmony. Having been established, it will react upon the other features by disturbing the mechanical balance as already pointed out.

GROUP II.— Causes of malocclusion falling into this group are such as the existence of enlarged tonsils or the premature loss of deciduous teeth from caries, etc.

I do not propose to tire you by going further into the causes of malocclusion. I hope I have said enough about them to show that they must be dependent on the same sequences which give rise to other facial aberations, or upon other circumstances which may be called accidental.

There is just one other point which must often have struck you in examining a fresh case of malocclusion—the difficulty and, in many cases, the impossibility of discovering the cause of the particular abnormality. This is due, I believe, to the fact that the original disturbing factor was transient, but its effects have been permanent and progressive, although it has itself passed away. Take two of the most important causes of malocclusion as an example—enlarged tonsils and nasal obstruction—it is very common for either of these conditions to appear, and after lasting for a varying length of time to undergo spontaneous cure, leaving no history or evidence of their occurrence except the resultant malocclusion. They appear, too, at the most critical period, before the eruption of the teeth is complete and before the bones have assumed their permanent contours, and are still in that plastic condition which enables them so quickly to respond to the slightest change in their immediate environment.

I think, by way of conclusion, that I can compress the whole matter of this paper into a few words as a sort of summing up. Facial harmony is the sum of the normal interaction of the forces acting upon the face; a change in any of these forces implies a different sum, and hence inharmony; malocclusion is only a branch of general facial inharmony and will depend on similar causes, but having once arisen will react on the surrounding features, making the deformity progressive. The causes of malocclusion are those circumstances producing deflection or alteration in any of the forces concerned, and may be grouped under those forces with which they have a common origin, separating only the adventitious causes.

Papers by Guy's Men.

S. Brownrigg, M.R.C.S., L.R.C.P. (and another), Bacteriologist to Moorfields Eye Hospital: Note on the Blood in Sympathetic Ophthalmia.—*British Medical Journal*, June 17th, 1911.

R. Davis-Colley, M.A., M.C. Cantab., F.R.C.S., Obstetric Assistant to Guy's Hospital: The Association of Toxæmia of Pregnancy with Hæmorrhage.—*Idem.*

W. H. Jalland, F.R.C.S. Eng., D.L., J.P., Senior Surgeon to the York County Hospital, and Medical Director of York Insurance Company:—Vaccination in Regard to Life Assurance. (An Abstract of a Paper read before the Life Assurance Medical Officers' Association).—*The Lancet*, June 17th, 1911.

Henry J. Clarke, Jun., M.A., M.B., B.C.: Note on a rare form of Strangulated Internal Hernia; Operation; Recovery.—*The Lancet*, May 27th, 1911.

E. P. Minnett, M.D., D.P.H.: Three unusual Post-mortems in British Guiana.—*Journal of Tropical Medicine and Hygiene*, April 15th, 1911.

Out-Patients' Tea Fund, Christmas, 1910.

Statement of Receipts and Expenditure.

RECEIPTS.

	£ s. d.
To Balance brought forward from last account	30 0 9
„ Donations, Collections, etc.	122 4 0
	£152 4 9

EXPENDITURE.

		£ s. d.
By Grant to Out-Patients' Samaritan Fund		15 0 0
„ Expenses: Cost of Tea (Caterer)	£28 17 6	
„ Groceries, Provisions, Fruit, etc.	18 5 2	
„ Clothing	13 5 0	
„ Toys, etc.	20 5 1	
„ Cinematograph Expenses ...	8 8 0	
„ Printing, Stationery, Postage ...	3 7 7	
„ Decorations	1 18 0	
„ Police Fees—Gratuities ...	3 7 6	
		97 13 10
By Balance carried forward:— Cash at Bankers		39 10 11
		£152 4 9

Audited and found correct,

CHAS. H. WELLS,
Incorporated Accountant.

May 4th, 1911.

Last Christmas tea was supplied to children between the ages of 6 and 11 years inclusive, girls and boys, in numbers up to about 920. They were entertained during tea by the Hospital Nigger Troupe, and afterwards by a Cinematograph performance. Various presents were then distributed to them from the Christmas trees.

It will be seen from the above statement of accounts that, after paying the total expenses of the tea, *i.e.*, £97 13s. 10d., a balance of £39 10s. 11d. is available. At a meeting of the Committee of the Children's Christmas Tea Fund, it was decided that this balance should be divided and used as follows:—

(*a*) £15 should be handed to the Out-patients' Samaritan Fund.

(*b*) £9 10s. 11d. should be handed to the Maternity Samaritan Fund, and

(*c*) £15 should be carried forward to the Fund for the Christmas Tea next year.

We should like to take this opportunity of thanking all those who, by donations, collections, or personal interest, so kindly helped us to make the tea and entertainment successful.

J. G. SANER.
F. KAHLENBERG.
Hon. Secs., Out-patients' Tea.

Korsakow's Syndrome.

CLINICAL LECTURE BY DR. G. NEWTON PITT.

GENTLEMEN,—Last week I was discussing diarrhœa and vomiting in children—a common trouble—and I propose to-day to take a rare condition, but still one which is of such great interest that it is worthy of a lecture. Although Dr. Wilks many years ago drew attention to the mental changes which occur in connection with alcoholic neuritis, or alcoholic paraplegia as he used to call it, the condition is one to which attention was more particularly drawn by Dr. Korsakow, a physician in Moscow, in 1887, and again in 1890, and since then there has been a general acceptance of the fact that there are certain peculiar mental troubles associated with alcoholic neuritis. The condition is called polyneuritic psychosis, or Korsakow's Syndrome. Korsakow, in his original paper, drew attention to the fact that, while the symptoms were generally associated with alcoholic neuritis, yet there were cases in which there was no evidence that the neuritis was due to alcohol, but in which it might be due to septicæmia, arsenic, syphilis, diabetes, or various other causes; and since then it has been shown that a similar group of symptoms may occur in toxic states without there being any neuritis. So, while the typical cases are met with in alcoholic patients with neuritis, similar symptoms, which you cannot distinguish from them, may occasionally be met with without neuritis and without alcoholism. The essential points are the loss of memory for recent events and difficulty in concentrating the attention, so that the patient's mind wanders very quickly from the subject in hand, and in consequence of his loss of memory he gets entirely out of touch with his surroundings. He may have no knowledge of time, place, or people, so you can easily realise his confusion. But associated with this loss of memory there is almost always a train of pseudo-reminiscences. His memory of early events is good, and the patient may answer all questions readily and freely without hesitation, to do which he must draw on his imagination. The condition used formerly to be looked upon simply as expert lying, but the patient is unconscious in the matter, and not willingly telling untruths. With this, hallucinations of sight and restless agitation are frequently associated. Presently I will give you the notes of half a dozen cases which will be the best way of illustrating the condition.

The particular subject of this lecture is a woman who was admitted to the hospital on the 18th of November, 1910, and died ten days later. The following are Mr. Doll's notes. She was married, and had had seven children; her husband was a gardener, and she has always taken a certain amount of alcohol with her meals. For the last five years she has been taking much more beer and whisky than formerly. Of recent years only has she become intoxicated, but latterly this has continued persistently until six weeks ago, when she came under her doctor's notice. She has had digestive troubles, and has taken her food badly for the last three years. During the past year she has had morning sickness, has lost flesh considerably, and has lived a sedentary life. For the last six months she has had a failing memory, with tingling sensations and pains in her legs. Her present condition started acutely seven weeks ago, when she went into the hop gardens to do hop-picking. She returned two days later, complaining of great pain in the legs and inability to stand. She was obliged to go to bed, developed diarrhœa and incontinence of fæces, and has been confined to her home and the hospital since. She is a somewhat frail woman, listless in her manner and with a dry loose skin, and does not take much interest in her surroundings.

When there was a noise in the ward or a child cried, she was under the impression that it was one of her own children, and said, "Don't let them kill it." She was constantly under the impression that her own children were there. She spoke in a monotonous voice, and was unable to give an account of her present condition. But she knew where she was born, and the number and names of her children. Her early history was given without trouble. She answered questions connected with her past history quite sensibly, but when one came to speak of recent events she was at a loss; she had no idea how she got to the hospital, and believed she was in her own home, constantly mistaking those around her for her husband or her son. But there was not complete absence of intelligence. For instance, while she was willing for one whom she imagined was her doctor to examine her abdomen, she insisted that all the rest should leave the room. When asked the day of the month, she said it was April and that it was summer time, whereas it was 4 o'clock on a November afternoon. She did not remember what she had had for lunch or for any other meal; she could not recognise things she saw or touched. Keys she believed were chocolates,

matches were cigarettes, and on feeling a knife she said it was a pencil. The pupils reacted sluggishly to light and to accommodation; she took her food fairly well, and presented no evidence of other organic disease of the viscera. Her tongue was tremulous, she had well-marked peripheral neuritis, and lay helpless in bed. There was very little power in her legs, great feebleness in her arms, and she discouraged attempts to move them. The plantar reflexes were very feeble, and when the sole of her foot was stroked she said it was being cut. The calf muscles were tender on pressure, they were wasted, the heart was dilated, the pulse rate 120, the circulation feeble, the extremities livid, and there was a trace of albumen in the urine. Here you have a typical example of the condition I referred to, in which the memory for early events is perfect, but that for recent ones is entirely absent; so that she had not the faintest idea of the difference between any stranger who came to speak to her and her own husband. She misinterpreted noises and sounds. Her diarrhœa became more severe, and gradually she passed into a condition of increasing coma. At first she could be roused, from her dull lethargic condition, but she became worse, and died comatose ten days after admission. At the post-mortem examination nothing abnormal could be found in the viscera so far as naked-eye appearances were concerned.*

The second case is that of a woman, aged 45, who was sent to the hospital by Dr. Darlow, with an alcoholic history. Her husband was a publican, and she apparently took a good deal of whisky. She had had a somewhat similar attack of acute delirium ten years previously. She has had gout comparatively recently, and has had incontinence of urine and fæces for a fortnight. Latterly she has been failing mentally, with more or less wandering delirium; her hands are helpless, she has marked peripheral neuritis and a very fatuous expression of face; she holds her legs stiffly, they are tender on pressure, there are no knee-jerks, the plantar reflex is feeble, and since admission she has had no idea where she is. She speaks as if she were in Scotland, and sometimes thinks she is in the West of England with friends. She declares she was married this morning, and her sentences are very confused. She thinks she had cabbages for breakfast, and at the same time says she was fed on half an egg. Her home is at Plaistow, yet she says she has never been there, that she has never been anywhere but at Silvertown, where she lived ten years previously. She is uncertain about her husband being the right man. The tongue is moist and clean, and there is a trace of albumen in the urine. She passed into an increasing condition of dementia, and was transferred to an asylum.

The next case was that of a lady aged 55, whom I saw two years ago, who had been in the habit of taking daily, during the last eight years, a bottle of brandy, and no food except a cracknel. Such a case is a strong argument against those who say that there is no nourishment in alcohol. The alcohol was stopped, and in a short time she was taking food and regained a good appetite, but she failed mentally. She could talk intelligently, was quick and smiling, but insisted she was not in her own home, found fault with her husband, alleging his great extravagance because he would stop at an hotel keeping her servants there, whereas she was all the time in her own home. She had hallucinations, fancying that people were hiding behind screens and curtains, and whispered for fear of disturbing them. She has had an attendant with her for three weeks, talks about events twenty years previously, and expects the attendant to know all about them, though she has no idea who the attendant is. She has no hallucinations of sound, but has great loss of memory, and does not know what she has had for meals, talks about events which never happened, and declared she had been on a round of visits, and had been out for a drive, and she referred to a recent visit to friends in the East of England, none of which had happened. She named a matchbox correctly, but did not know its use. When shown a spectacle case with a frayed edge, she said it was an old cigar case. Such patients are not totally deficient in observation, but they make wrong deductions. She is just able to stand, but has to be carried up and down stairs. She complains that when the soles of her feet are tickled in order to try and obtain a plantar response, that she is being burnt. There is a slight plantar reflex, but no knee-jerk, her legs are very tender on pressure, and she holds her fingers and hands in a state of tonic flexion. She has a loss of muscle sense, and has to be fed, although she says she always feeds herself. She has visual hallucinations, loss of memory, and very marked pseudo-reminiscences. She gradually improved, and within less than a year she was well and her mental power was good.

Another case was that of a man aged 54, who had had chronic gastritis for years past. He had always taken alcohol more or less to

* An abstract of Mr. W. Johnson's report on the microscopical findings is appended.

excess, but comparatively little food. Recently he has been losing weight, has been forgetful, and has been making silly remarks. When we saw him he said he had been for a walk, although he had been confined to the house two or three weeks. He declared he had had various articles of food, which was not true, and he could not recollect anything which had happened in the last two or three weeks. He could not tell us the name of the street he lived in. He had well-marked peripheral neuritis, his muscles were tender, and their contraction feeble; he had paræsthesia. When he sat in a chair he could not get up without assistance, and when he tried to sit down he sank down suddenly. When seen later, his memory had improved, but even then he did not know the names of his children, where he lived, or the day of the week. He was a commercial traveller, yet he could not say what streets he would pass in going from one place to another. When he improved, he could give the names of his children and do sums in arithmetic, and name objects. If he read a paragraph in the paper he could not tell anything about it two minutes afterwards. He gradually improved, but his mental condition never completely recovered.

The next case is that of a lady of 76, who had had perfect health until a few months previously, when she began to fail in power, and to develop peripheral neuritis. She suffered much pain, and gradually got worse. At the same time she also developed a failure of memory for recent events, so that she was unable to say what had happened in the last four days, or to recognise people, or tell us anything except about matters belonging to a time long previous.

These cases present several points of difference, and I will now refer to another instance. It was a remarkable case which was in the hospital six years ago; the patient was a Postmaster from the West African Gold Coast, who had had severe malaria, but had been an extremely temperate man, and had led a most regular life. He was invalided home, and was brought up from the ship to the hospital by one of his fellow passengers. On speaking to him he did not know with whom he was conversing, and thought it was an old friend, nor did he know how he got there. He could relate the whole of his history in childhood, and of his life on the Gold Coast, provided it did not deal with the past three months. His memory was so defective that if one asked him to walk down the ward and bring back a certain book, he would return after having gone ten paces to be told again what he was to do. If he went into the grounds he would have to be brought back by someone, because he could not find his way back into the ward. Yet he had no peripheral neuritis, no history of alcoholism, and he struck one as being in other respects a sensible man. I take it his condition was a toxic psychosis, due to the malarial poison, similar in character to that due to alcohol, but without the development of any neuritis.

Another case was that of a man aged 32, who had been a heavy drinker for years, and had developed peripheral neuritis, and drifted into a condition of amnesia. He had hallucinations of sight, and he was constantly imagining he had done things and taken journeys although he was in bed in the hospital. He had been in the habit of spending £3 a week on alcohol. In this case also, the arms were stiff and rigid, although very feeble. He imagined that people were ruining him, he did not recognise his friends, including his wife, he gradually failed and within two months he died of coma. Dr. Craig, who saw him from the first, gave a very bad prognosis, partly on account of the rigidity, which was indicative of the degenerative changes in the cortex of the brain. There is no doubt that in many of these cases the changes are not limited to the nerves, but involve also the cells of the spinal cord and of the brain.

A rather different case was that of a man aged 50, an undertaker, who had been a heavy drinker for years. It is difficult to say how much he drank, but we know he had about 12 bottles of spirits a week. For two months he had had some defect in his speech, and was disconnected in his remarks; he would run from subject to subject, and his speech difficulty had increased during the last four days; he had been confined to his bed for two weeks. When seen, there was no doubt he was very ill, he had been rapidly losing flesh, he had a cirrhotic liver, the urine contained albumen, and he lay in bed with a more or less perpetual smile, and did not, as far as one could tell, follow objects with his eyes. When given a match, he could not understand the use of it. If I held up one finger and asked him how many, he would say five or six, and yet it was clear he was not blind. He answered questions wrongly, and had no idea of the address of the street he was in. He knew his name and the name of his wife, but his answers often had no connection with the questions which had been put. If you asked him what a set of letters spelt, he gave you the right answer without any hesitation, and if you showed him a book he read fluently, but knew nothing

of the matter which was in the book. As a matter of fact he had *apraxia: i.e.*, he had lost the memory of the proper use of objects. If you gave him a glass of water, he would not know what to do with it, and if you gave him food, he would not know what it was for. If you asked him what he did yesterday, he would say he had been out for a long drive, and had been to see people, although he had not left the room. He saw animals wandering about, and heard noises: he had symptoms which partly resembled Korsakow's Syndrome, and partly the condition of apraxia. He suddenly improved, and a week or two later it appeared as if he were going to recover. But in a few days he reverted to his previous condition, and died comatose at the end of two or three weeks.

With regard to the general condition of the cases which have been collected, many more have been among men than among women, and most of them have been between the ages of 30 and 50. Dr. Mott and others think that certainly in addition to the alcohol, there is almost always some infective or toxic process as well. And the same is probably true with regard to delirium tremens. This condition bears a very close relationship to delirium tremens; both occur in the course of chronic alcoholism, but the attacks are determined by some fatigue or exposure to cold, by influenza, or some acute illness, or traumatism. In delirium tremens the attack is a matter of two or three, or six days at the outside. There is much more active delirium, much more restlessness, and the process is altogether more acute.

With regard to the lesions which you find post-mortem, in the acute cases where there is peripheral parenchymatous neuritis, the nuclei proliferate and the sheaths of Schwann fragment, and this leads to destruction of the axis cylinder. In the more chronic cases there is fibrosis of the nerve. With regard to the brain, there seems to be an increasing concensus of opinion that changes are also to be found there. There are degenerative changes in the cells, increased vascularity, an increased number of small capillaries, and thickening of the membranes; the processes of the cells atrophy and there is chromatolysis with degenerative changes in the nuclei. In the cord there are changes in the processes of the cells, and not infrequently evidences of early degeneration, both in the posterior and in the lateral columns. We have, therefore, to realise that the same poison which has set up a peripheral neuritis may also set up changes in other parts of the nervous system, and be responsible for the development of further symptoms. At present one cannot say there are any changes which are characteristic of these symptoms; that is, no one can say, by looking at a brain, whether its possessor had Korsakow's psychosis or not. With regard to the loss of memory, you find that the patients have, as a rule, a varying degree of amnesia, but in the well-marked cases they are unable to recognise those in their neighbourhood, and they will call persons by different names on successive days. They have no idea where they are, and they will frequently imagine they are living in a time five or ten years previously, the intervening period being absent owing to their loss of memory. But the remarkable thing with regard to the condition is that as a rule where there are lacunæ in their memory they at once, in response to questions, give answers which are voluble and apparently sensible, but which are entirely founded on their imagination. If you ask these people whom they have seen, they will not say they have not seen anybody while they were ill in bed, but will enter into a description of journeys they say they have undertaken, which are often associated with their early life; and frequently their ideas are associated with their previous occupations. All the patients do not have hallucinations, but, if they do, they are those of sight, usually, rather than of hearing. But there is a closely allied group of cases in which the patients hear voices and have ideas of persecution. Apparently, in some of these cases, the intelligence and judgment may be intact, except for the defect of memory.

In acute cases the condition has to be diagnosed from delirium tremens. In many cases it is difficult to do so, if, indeed, there is any difference except one of time. But delirium tremens is nearly always preceded by insomnia, and the delirium is much more active, in addition to which the patient is more violent and noisy; there is more picking at the bed clothes, the patient is more angry, and is constantly getting out of bed; also the visual hallucinations are always very active and disagreeable. The tongue is generally red and glazed, and there is a bounding pulse. Within a few days the patient either drops off to sleep, and wakes up more or less well; but not infrequently such cases develop pneumonia and die. The element of time is also an important factor in the diagnosis. Then we come to the cases of acute paranoia which occur in connection with chronic alcoholism. The

hallucinations are always acoustic, and the patients do not lose their orientation to the same extent. There are great disturbances of memory, and frequently delusions with regard to their relation to events which have passed. In the chronic cases your chief trouble in diagnosis will be in connection with general paralysis of the insane. In that disease, although there may be very marked loss of memory, you do not find it to such an extreme extent, and yet associated with the retention of a fair amount of intelligence and judgment. In general paralysis of the insane, if the memory for recent events is very defective, the intelligence is generally at a very low ebb; there are also unequal pupils, a greasy skin, with tremors and delusions of grandeur, which are all wanting in Korsakow's Syndrome. A lumbar puncture and a Wassermann's reaction will also help you to distinguish them.

Now as to the prognosis. My clinical clerks have looked through the records in the medical wards of the fatal cases which have been indexed as chronic alcoholism during the past ten years. There were 77 patients who were chronic drunkards, who had been admitted as cases of chronic alcoholism; 33 per cent. of the patients died from pneumonia, and I have no doubt a very large number of other fatal cases of pneumonia were due to alcoholism. The next most important cause is cirrhosis of the liver, accounting for 20 per cent. I believe this to be rather high, and that the true percentage is nearer 12. Myocardial degeneration accounts for 13 per cent., and kidney trouble for 10 per cent. Phthisis accounts for 12 per cent. But hospital statistics are fallacious on this point, because cases of chronic phthisis are not admitted, but drift into the infirmaries. I should think 30 or 40 per cent. ultimately die from tubercle. Three cases of Korsakow's Syndrome appear in this series, in two there was malignant disease and one died from alcoholic peripheral neuritis, though nine suffered from it. There were three cases of suicide, and in many of the cases tubercle was found.

A very interesting fact to be brought out is, that if a man drinks steadily to excess until he kills himself, it is very improbable that he will have cirrhosis of the liver, and therefore in the production of this latter lesion there is always some other factor besides alcohol. Most probably the digestion must also be so extremely deranged as to produce toxic effects on the liver. It is only when a patient fails to eat, in addition to drinking to excess, that he gets cirrhosis. This is borne out by experiments on animals. If you starve a dog and give it alcohol, it will quickly develop a fatty liver; whereas if you feed the dog, but give it the same amount of alcohol, it is unlikely to develop liver trouble. I want you to remember that only a fraction of the drunkards develop cirrhosis of the liver, and that one-fourth of those who have cirrhosis of the liver are found post-mortem also to have tubercle.

The condition which I have brought before you to-day is extremely interesting. It is a difficult one in which to give a definite prognosis. If you see a case in the early stage you will know that not improbably it may die within two or three months. The outlook is particularly bad with those who hold their limbs rigidly. The prognosis largely depends on the capacity of the patients to take food. Those who recover, generally do so with more or less mental weakness, for the number who completely recover is very small, and the mental recovery may be a question of many months.

As to treatment, the difficulty is to keep up the nutrition. If you can get the patient to take plenty of milk, eggs, and butter, and you can avoid diarrhœa, they may have a chance of doing well. Our particular patient died with diarrhœa. When they do get better it is most important to prevent them from over-fatiguing themselves; for over-fatigue of the body necessarily retards recovery of the mind.

Abstract of Pathological Report.

THE brain and spinal cord were normal in size and contained no changes perceptible to the naked eye. After fixation in formalin and staining sections with (1) hæmatoxylin and eosin, (2) Marchi's method, (3) Weigert Pal's method, and (4) Nissl's method, the following changes were discovered:—In the brain it was difficult to find any normal cortical cells. The majority were abnormal in size, some swollen and others shrunken, the nucleus was eccentric, and the cell substance showed diffuse chromatolysis, *i.e.*, it stained diffusely with Nissl's stain, and showed no Nissl's granules. The unequal degree to which the individual cells were affected was noticeable. In the spinal cord exactly the same changes were apparent in the anterior horn cells throughout the length of the cord. The white matter of the cord showed diffuse degeneration, especially marked round the periphery and in the posterior columns, but it cannot be said that any particular tract was picked out to the exclusion of the others. In addition, certain nerves were examined, viz.,

sciatic, anterior crural and vagus. Well-marked degeneration of nerve fibres was found in all, the degeneration being very similar to the diffuse appearance found in the fibres of the cord. Everywhere a condition of engorgement of the blood vessels was present.

To summarise: The whole of the central nervous system, together with the peripheral nerves, exhibited diffuse degeneration, recent as well as old. Such a condition can only be the result of a *general* poisoning of the nervous system. W. J.

Cases for Commentary.

Set in the Examinations for the Treasurer's Gold Medals.

1. Medicine.

James A., æt. 38, a worker in a tarpaulin factory, was admitted into the hospital on August 28th, 1898. His mother died of heart disease; he does not know the cause of his father's death. His brothers and sisters are healthy. He had never, as far as he knew, had any illness till the present, which began a month before admission, with shortness of breath and exhaustion after work. In less than a week he could not work; for a few days before admission he had had some slight shivering attacks.

On admission, his pulse was 110, it was feeble and small, but otherwise had no special characteristics, his respirations were 20, his temperature 100° F. He was pale and looked ill. The cardiac dulness was diminished; the impulse could not be found. In the mitral area a musical systolic bruit could be heard; this was traceable into the axilla. A non-musical systolic murmur could be heard over the base of the heart, especially to the right of the sternum. There were some rhonchi in the lungs. He complained of abdominal pain under both the right and left ribs. The urine was 1010, and contained some blood, a good deal of albumen, and some granular and hyaline casts. Four days after admission the cardiac impulse could be felt in the fifth space one inch outside the nipple line.

September 12th.—His temperature has been normal for a week, he feels and looks much better, but the condition of the heart is unaltered. The amount of urine secreted daily has been about 40 ozs., blood and albumen and casts are still present, the abdominal pain is less. To-day a rash was noticed for the first time, it consisted of irregular pink patches scattered all over the body; the redness disappeared on pressure. There are still some rhonchi.

September 19th.—The rash has gradually faded; the last few days he has been much better, therefore he has been allowed to get up.

September 24th.—Getting up has so increased the hæmaturia that he has been put back to bed.

September 30th.—For the last four days the temperature has gradually risen and is now 101. The heart remains as before, the rhonchi are more evident, and some rales are present. There is a loud pleuritic rub at the left base. Slight but definite optic neuritis is present in both eyes; they were normal on admission.

October 19th.—Since the last note the patient has got steadily weaker; the rales have become more numerous, and he has complained of much pain in the left chest, but of none in the abdomen; the base of the left lung is duller than that of the right, and the entry of air is not so good on the left as on the right. The state of the heart is unaltered. The tongue is dry. There is much anorexia. The temperature since the last note has on most days been between 102 and 103; he has not shivered. The urine remains as before. During the last week he has had several convulsive attacks followed by unconsciousness, and also several attacks of great dyspnœa. He died on the evening of this day.

Discuss the interpretation of the symptoms and the diagnosis of this case, state what you think was found at the post-mortem, and also give in detail the treatment that you would adopt if the patient were under your care.

2. Surgery.

A middle-aged man was journeying home in a state of semi-intoxication when he fell on to the pavement with his legs apart. He was picked up and assisted home. The next time he passed his urine he noticed that it was deeply blood-stained, so he came to the hospital and was admitted.

On examination there was seen to be some bruising of the dorsum of the penis, and, also, to a less extent, of the tip of the scrotum. He complained of some pain and tenderness in the region of the symphysis pubis, but nothing abnormal was detected here.

A catheter was passed quite easily, and some deeply blood-stained urine was evacuated. The catheter was withdrawn and the patient remained in bed.

When seen again in four days' time his temperature had risen to 102·5°. He was suffering from considerable pain in the region of the symphysis pubis, and now it was seen that a considerable amount of bruising was visible here, and it had extended up into both inguinal regions, where, on palpation, there was tenderness, with considerable resistance, and slight pitting of the skin on pressure. The urine had remained blood-stained all the time.

An operation was performed which temporarily relieved the patient. The temperature fell, but gradually rose again, and he complained of trouble with the bowels some ten days after the operation. On in-

spection, the anus was seen to be patulous, with some fæces and shreds of sloughing membrane protruding.

On examining with the finger, the left side of the rectum was found to have sloughed away, and the pelvis and concavity of the sacrum were packed with fæces. A second operation was performed, after which the patient rapidly recovered, and is now doing his ordinary work.

What was the diagnosis of this case? What was discovered and done at the first operation? How was the rectal trouble produced, and what was done at the second operation?

Solutions to Cases for Commentary.

MEDICINE.

At the post-mortem on the above case the heart was found to be much hypertrophied. There was malignant endocarditis of the aortic valves which were obviously affected by older disease. The mitral valve itself appeared healthy, but from the appearance of the auricle it had almost certainly leaked. There were fibroid patches in the heart, much bronchitis, œdema of the lungs, some pleurisy on the left side and less on the right. There was a large infarct in the spleen. The kidneys were much enlarged and pale. There was much tubal change, but little or no interstitial. Dotted all over the kidneys were minute hæmorrhages. The testicles were healthy, and there was no evidence of syphilis. The brain was perfectly healthy; there was no evidence of meningitis.

SURGERY.

In this case there was a separation of the symphisis pubis through the cartilage, and an extraperitoneal rupture of the bladder. At the first operation, a median incision above the symphisis was made, and a quantity of blood-stained urine was found. The bladder rent was not sought for, but a large drainage tube was inserted. The cause of the rectal trouble was the occurrence, aided by gravity, of an abscess behind the neck of the bladder, especially on the left side, which had produced the sloughing of the rectum. At the second operation, a permanent left inguinal colostomy was made, and the fæcal and pustular collection in the pelvis was washed out from above and from below.

Guy's Hospital Swimming Club.

The following members have passed the examination for the Life Saving Society's Medallion:—M. Pern, W. J. D. Smythe, J. York-Moore, A. D. Buck, A. G. Forrest, R. W. Ballard, O. N. Mash.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

National Insurance Bill.

SIR,—Four short years ago Mr. Burns fathered through Parliament a "Notification of Births Bill," and completely hypnotised the medical profession by agreeing, in a conference, with their demands for the payment of 1s. for each compulsory notification of a birth. In the Commons Mr. Burns left the matter to the House, the House refused this very just condition, and the profession was sold.

One hopes, therefore, that the similar, far graver, questions involved in the present Bill may be handled "mainly on a question of efficiency and not one of justice, for the standard of justice is very variable, while that of efficiency is capable of scientific proof." I at least have small faith in the standard of justice to be expected from the House of Commons to medical men. To base arguments on that score is futile. To base them on efficiency, which involves justice, is mere ordinary common sense.

To Mr. Sichel I would profess my total absence of "faith in the Chancellor of the Exchequer and his political party," while yet recognising that their measures may occasionally embody useful principles. To Dr. McGregor I would point out that this measure is regarded by socialists as anti-socialistic, inasmuch as only one-fifth of the payments are made from the Exchequer. To Dr. Milton I would suggest that a sturdy determination to support the policy of the British Medical Association with the utmost vigour, combined with a practical attention to the considerations likely to weigh with our masters in Parliament, would be a more effective and valuable defence than to sit down and cry—especially in ink.—Yours faithfully,

F. E. FREMANTLE.

DEAR SIR,—The Chancellor told the Representative meeting that we could reckon on the Bill going through, and in view of the Government's majority we may sincerely believe him.

It appears, therefore, that our vital endeavour should be to get inserted definitely into this Bill, which is going to become law, the six points recommended by the B.M.A., and detailed in their circular. For if these points or any others of like importance are left to be arranged by local practitioners, in conflict probably with their local Health Committee, then the whole and united opposition of the profession to unfair treatment disappears. It is lost sight of amongst a number of small squabbles of an undignified character. Divided up in this way, and therefore made weaker, we should lose weight and influence and would fare badly.—Yours truly,

W. H. M. SMITH.

13th June, 1911.

SIR,—I read Dr. Fremantle's article just before going to a B. M. A. Meeting of the branch which includes the county for which Dr. Fremantle is M. O. H. I am glad to say that the meeting was unanimous as to the injustice of the Bill, and in disregarding Dr. Fremantle's advice.

I think it is regrettable that any member of the profession should have written as Dr. Fremantle has done, more especially one whose own withers happen to be unwrung. One against us within our own ranks just now can do more harm than enough.

This is not the only public expression of opinion emanating recently from Guy's which general practitioners have thought, to put it mildly, unfortunate. I am aware that in the one case an explanation, or edited version was afterwards published, but I expect the first was the only one generally read.

Whatever others may say, we general practitioners know perfectly well that our ranks are overcrowded, that it is difficult to make a bare living in general practice now, and that if this Bill passes it will be impossible for many to make any kind of living. Even now the medical is not, any more than the Church, a profession for a man without some means. One sometimes hears or sees it nicely worked out in this sort of way: "So many people at so much a head makes so much a year, quite a nice income!" So it may be for the celibate Friendly Societies' official doctor of the future, living in the Societies' official buildings, or in lodgings, and doing his rounds on a bicycle. But what on earth is the use of it (say £400 a year, as that seems to be a favourite sum) for a married man with an expensive house and some position to keep up? And remember the "position" and the house are not usually a matter of choice. The house usually goes with the practice and has to be taken, usually at a good deal more than its market value. Then there are servants, drugs, carriage and horse, or horses (or motor), insurances, subscriptions, rates, etc. These will swallow up the amount, leaving the "minor details" of wife and family, food and education not provided for.

I think most men will agree with me, especially those who are given to frequent Out-patient Departments of hospitals, that the G. P. does not hold a very exalted position in public estimation now. Where shall we stand if we let ourselves in for the new cheap system?

Let me advise men—though I'm afraid it is late in the session—about to enter the profession to ponder seriously Punch's classic advice to those about to marry.—Yours, etc.,

H. N. EDWARDS.

May 30th, 1911.

DEAR SIR,—I should like to emphasise a point mentioned by Dr. Sichel in his recent letter to the GAZETTE. Is not the Chancellor, he asked, exploiting the medical profession for the purpose of gaining popularity? It seems to me that Mr. Lloyd George admitted as much at the Special Representative Meeting of the B.M.A. When the question of an income limit was raised, Mr. Lloyd George at once admitted that here the doctors have a grievance. He agrees that a man earning £200, £300 or £400 a year should not be entitled to claim medical service at 6s.—8s. a year, but he was willing to make a limit only in the case of voluntary contributors, and in their case he would not consent to make it less than £160.

Now why should not this limit apply also to those who earn their living by manual labour, whose living expenses are certainly not greater, but in most cases less? Mr. Lloyd George gives the reason: No man dare get up in the House of Commons and propose to exclude miners, or engineers, or other classes of highly-paid workmen, not because it would not be fair to exclude them, but because it would be too unpopular, and the House of Commons represents half a million miners, besides engineers, etc., while it only represents about 35,000 medical men scattered all over the kingdom.

But since Mr. Lloyd George admits so readily the point as regards voluntary contributors, one wonders how it was that such an obvious grievance was allowed in the Bill. Was it *in order that* the point might be ostentatiously conceded?

The Bill as it stands is undoubtedly a very grave menace to the profession, but the real danger has still to be faced. At present, with the Bill as it is, there is an extraordinary degree of unanimity in the profession in the determination to oppose the Bill both in its passage into law, and, if necessary, in its working afterwards. But by conceding a little here and a little there, the Chancellor, without materially improving the Bill from a medical point of view, may be able to produce division among the profession. And in that contingency lies our greatest danger.—Yours faithfully,

ERNEST B. HINDE.

Necessitous Old Guy's Man.

DEAR MR. EDITOR,—I am much obliged to you for the cheque for £3 18s. 0d., subscribed by a few generous readers for poor Dr. B——. It will enable us to supplement his pension for four months.—Believe me, yours very truly,

A MEMBER OF THE STAFF.

9th June, 1911.

Periodicals, etc., Received.

The Hospital (2); London Hospital Gazette; Clinical Journal (2); South African Medical Record; New Zealand Medical Journal; The Nursing Times (2); The Prescriber; The Stethoscope; St. George's Hospital Gazette; Polyclinic; Charing Cross Hospital Gazette; St. Thomas's Hospital Gazette; Manchester University Magazine; Middlesex Hospital Journal; The British Sanatoria Annual (John Bale & Sons), etc.

Guy's Hospital Athletic Club.

THE Annual Sports were held at Honor Oak on Saturday, June 17th, in brilliant sunshine. A very heavy rainstorm in the early morning, and cloudy uncertain weather till mid-day, had not prevented a large crowd from gathering in the afternoon. Among those present we noticed, Dr. and Mrs. Pitt, Dr. and Mrs. Stevens, Mr. and Mrs. Steward, Mr. and Mrs. Fagge, Dr. and Mrs. Fawcett, Dr. and Mrs. Iredell, Mr. and Mrs. Ormond, Mr. and Mrs. Mollison, Mrs. Turner, Drs. Hertz, King-Brown, Rippman, and Mann, Messrs. Thompson and Hughes, and a large number of sisters and nurses. In view of the Inter-Hospital Sports next week, and of the great interest which they have aroused this year, it was very gratifying to the Committee to find so much keenness in the Hospital, as shewn by the entries which constitute a record. The ground was in excellent condition, and every event was well contested. A special feature of the meeting was the excellent running of H. W. Evans, who showed fine form by winning the 100 yards scr. in 10⅘, the 220 scr. in 23⅕, and second from scr. to W. S. Stranack, the well-known Rugby forward, from 15 yards in the 220 in 22⅕. The latter also scored a popular win in the 100 yards handicap from 10 yards. Congratulations to H. Parry-Price on his form in the half-mile and mile, and also to S. W. Bevis for his fine jump of 5ft. 6in. Great interest was shown in the Tug of War, which was won this year from the holders, the Old Crocks, after two excellent pulls by the fourth year. The Clement Lucas Challenge Cup went to H. W. Evans with 16 points, Parry-Price being runner up with 10 points.

Considerable amusement was caused by the Obstacle Race, which replaced the Donkey Race of former years, and the Secretaries wish to thank R. G. Oram and his boy scouts for preparing the race at such short notice.

The meeting closed at 6 p.m , with the Distribution of Prizes by Mrs. Mollison, to whom the Committee wish to express their thanks for so graciously undertaking that duty. Their thanks are also due to the gentlemen who officiated as judges, timekeeper, and starter, and also to Dr. Fawcett, Mr. Mollison, and Dr. French, for their kindness in presenting special prizes for the Mile, Three Miles, and Tug of War. During the afternoon an excellent musical programme was rendered by the City of London Police Band.

The following is a list of the results :—

100 YARDS SCRATCH.—H. W. Evans, 1 ; A. L. Stokes, 2 ; A. B. Danby, 3. Time, 10⅘ sec. Won by three yards ; good third.

PUTTING THE SHOT :—

SCRATCH.—A. L. Stokes, 1, 33ft. 3in.

HANDICAP.—W. G. Tucker, 4ft. 6in., 1, 35ft. 3½in. ; A. V. Moberly, 3ft., 2 ; W. S. Stranack, 3ft. 6in., 3.

100 YARDS HANDICAP.—W. S. Stranack, 10 yds., 1 ; R. W. Spong, 9 yds., 2 ; H. W. Evans, scratch, 3. Time, 10⅗ sec. Won by three yards.

HALF MILE HANDICAP.—E. C. Nicholls, 40 yds., 1 ; F. Figg-Hoblyn, 50 yds., 2. Time 2 min. 6⅗ sec. A fine race, Nicholl just winning by a yard.

HIGH JUMP :—

SCRATCH.—M. Tweed, 1 ; S. H. Browning, 2. 5ft. 4in.

HANDICAP.—S. W. Bevis, 3in., 1 ; M. Tweed, 3½in., 2 ; E. S. Bowes, 6in., 3. 5ft. 9in.

THROWING THE HAMMER :—

SCRATCH.—W. G. Tucker, 1, 104ft. 1in. ; H. W. Evans, 2, 93ft. 2in. ; P. E. Patey, 3, 76ft. 3in.

HANDICAP.—H. J. Leviseur, 45ft., 1 ; P. E. Patey, 25ft., 2. 111ft. 7in.

440 YARDS STAFF RACE.—Anson, 1 ; Moore, 2. Time, 56⅗ sec.

120 YARDS HURDLES SCRATCH.—A. W. A. Davis, 1 ; W. T. O'Kane, 2 ; A. L. Stokes, 3. Time, 17⅘ sec. Won by a foot.

220 YARDS HANDICAP.—W. S. Stranack, 15 yds., 1 ; H. W. Evans, scratch, 2 ; R. W. Spong, 3. Time, 22⅗ sec. Won by two yards, a yard between second and third.

LONG JUMP, SCRATCH.—C. H. Medlock, 19ft. 5in., 1 ; H. W. Evans, 2.

HANDICAP.—W. S. Stranack, 4ft., 1 ; E. A. Leviseur, 3ft. 6in., 2 ; M. Tweed, 2ft., 3 ; distance, 21ft. 9in.

ONE MILE SCRATCH.—H. Parry-Price, 1 ; J. R. Barrow-Clough, 2 ; W. K. Fry, 3. Time, 4 min. 52⅗ sec. Fry led at the finish of the first lap, but at halfway Parry-Price took the lead and maintained it to the end. A fine race.

120 YARDS HURDLES HANDICAP.—E. S. Bowes, 1 ; A. W. A. Davis, 2. Time, 18 sec. Won by a foot.

220 YARDS SCRATCH.—H. W. Evans, 1 ; E. S. Bowes, 2. Time, 23⅘ sec. Won easily.

THREE MILES HANDICAP.—H. Parry-Price, 150 yds., 1 ; J. R. Barrow-Clough, scratch, 2. Time, 16 mins. 20⅘ sec. Parry-Price was well ahead at halfway, and won by 150 yds.

OBSTACLE RACE.—W. T. O'Kane, 1 ; H. N. Eccles, 2.

MILE HANDICAP.—H. Parry-Price, 50 yds., 1 ; A. G. Forrest, 150 yds., 2 ; M. J. Wallis, 150 yds., 3. A good race ; Parry-Price ran with judgment throughout, and won comfortably.

440 YARDS HANDICAP.—H. W. Evans, 5 yds., 1 ; E. S. Bowes, 2 ; E. A. Leviseur, 10 yds., 3. Evans took the lead 100 yards from home and won by two yards. A good third.

HALF-MILE SCRATCH.—H. Parry-Price, 1 ; G. D. Eccles, 2. A close race ; Eccles was first into the straight, but was just passed before the winning post by Parry-Price.

THREE MILES SCRATCH.—J. R. Barrow-Clough, 1 ; N. H. W. Saw, 2. An easy win ; Saw ran a very plucky race.

TUG-OF-WAR.—Won by the 4th year.—W. G. Tucker, A. V. Moberly, A. B. Danby, G. D. Eccles, H. T. Hoby, W. S. Stranack, L. Muir-Smith, W. L. Gwyn-Davis.

Sport.

Cricket.

GUY'S v. STORES.

Played at Honor Oak on June 7th. The Stores won the toss, and gave Guy's a goodly sojourn in the fields, Townsend playing a really splendid innings of 107 not out. Going in to bat against the large total of 339, Guy's replied with 174 for 4 wickets, Hunôt being top scorer with 56 not out; Hancock also batted well for 39. Harkness bowled well.

STORES.

C. E. Dalton, b Harkness	85
N. E. Farr, c Hancock, b Harkness	29
S. E. Walmisley, c Rook, b Hancock	1
C. Haywood, b Harkness	14
S. L. King, b Harkness	36
H. Miller, b Fawcus	16
C. B. Nicholls, absent	—
O. C. White, c Andrew, b Fawcus	21
M. Townsend, not out	107
G. Kelland, not out	1
G. A. Ashby, did not bat	—
Extras	29
Total (for 7 wickets)	339

GUY'S.

A. C. Hancock, c & b Haywood	39
A. B. Bond, b White	10
R. S. Kennedy, b White	4
G. W. M. Andrew, hit wicket, b White	28
F. C. Hunôt, not out	56
A. F. Rook, not out	25
M. Scott, did not bat	—
R. Ozanne, did not bat	—
A. H. Harkness, did not bat	—
R. A. Fawcus, did not bat	—
H. N. Purdon, did not bat	—
Extras	12
Total (for 4 wickets)	174

GUY'S v. MIDDLESEX HOSPITAL.

The first Cup Tie was played at Winchmore Hill on June 9th, and resulted in a fairly easy win for Guy's. Middlesex batted first and made 147; of these, Lawrence (who was a thorn in Guy's side last year in the final) made 69. Kahlenberg bowled really well, and took 5 wickets for 71. Guy's went in to bat, and put together 261. Of these, Bond made 84 by some excellent batting, and was unfortunately stumped "having a go." Harkness found the bowling nice, and quite enjoyed himself towards the end. The batting, on the whole, was quite consistent, and the fielding was quite good, Hancock making a very good catch in the slips. Digby was very unlucky, having the misfortune to injure his knee while attempting a run, thus having to retire.

MIDDLESEX.

J. W. Whiteman, b Fawcus	3
B. M. Luke, b Kahlenberg	0
P. W. Symons, c Fawcus, b Kahlenberg	21
H. Wearne, b Kahlenberg	0
P. J. Montgomery, c Hancock, b Kahlenberg	28
G. Lawrence, b Harkness	69
W. H. Eggar, run out	0
H. S. Alexander, b Kahlenberg	12
E. A. C. Fazan, run out	3
C. E. Procter, c Birks, b Harkness	4
S. H. Harris, not out	1
Extras	6
Total	147

GUY'S.

A. C. Hancock, c Symons, b Whiteman	12
A. B. Bond, st Symons, b Eggar	84
A. H. Birks, b Whiteman	9
R. S. Kennedy, b Whiteman	17
F. C. Hunôt, st Fazan, b Eggar	2
A. F. Rook, c Harris, b Alexander	21
W. E. S. Digby, retired hurt	3
G. W. M. Andrew, c Symons, b Eggar	25
A. H. Harkness, not out	47
F. Kahlenberg, c & b Lawrence	29
R. A. Fawcus, b Lawrence	0
Extras	12
Total	261

GUY'S v. DARENTH ASYLUM.

Played at Darenth on June 14th. Darenth were disposed of for 93, by Rook (4 wickets for 32) and Kennedy (6 wickets for 56). Guy's knocked up 317 for 6 wickets. Rook played a great innings of 121, scoring well all round the wicket. Among his strokes were three 6's, two from fine straight drives, and nineteen 4's. Veale also helped himself to a good 102, which included some fine hits on the off-side. It is some time since two Guy's men have scored three-figures in the same match, and it is to be hoped that they will do it again in the Cup Ties. The eleven seems to have turned over quite a new leaf this month.

DARENTH ASYLUM.

P. Whelan, b Kennedy	3
J. Draper, b Rook	12
W. C. Benger, c Rook, b Kennedy	28
W. H. Trolley, b Kennedy	2
J. Sarginson, c Kennedy, b Rook	1
G. Crook, c Birks, b Rook	18
H. Prestoe, c Hancock, b Kennedy	4
T. Simmonds, c Bond, b Rook	11
E. J. Saltwell, b Kennedy	8
B. Boater, not out	4
A. Green, st Birks, b Kennedy	0
Extras	2
Total	93

GUY'S.

A. C. Hancock, b Draper	0
A. B. Bond, c Crook, b Prestoe	7
A. H. Birks, c Sarginson, b Benger	24
R. M. Veale, st Crook, b Benger	102
R. S. Kennedy, b Green	4
A. F. Rook, b Green	121
F. C. Hunôt, not out	33
G. W. M. Andrew, did not bat	—
A. H. Harkness, did not bat	—
M. Scott, did not bat	—
H. N. Purdon, did not bat	—
Extras	26
Total (for 6 wickets)	317

GUY'S v. GRANVILLE.

Played at Lee on June 17th. Guy's won the toss and batted first, making 146. Kennedy and Veale were top scorers with 33 and 38 respectively. At one time the score was 130 for 4 wickets, and it looked as though we might put together a good score, but the last 6 wickets fell quickly. Granville replied with 334, Kendle playing a good knock of 113. Rhys Evans was our most successful bowler, with 4 wickets for 64.

GUY'S.

A. B. Bond, b Preston	11
G. W. M. Andrew, c Preston, b Johnston	20
R. S. Kennedy, b Preston	33
A. F. Rook, c Platt, b Preston	10
F. C. Hunôt, b Preston	15
R. M. Veale, b Preston	38
M. Scott, c P. P. Lincoln, b Preston	0
A. H. Harkness, c P. L. Lincoln, b Preston	0
A. C. Hancock, not out	4
H. N. Purdon, b Preston	0
J. E. Rhys Evans, st Platt, b Johnston	1
Extras	14
Total	146

GRANVILLE.

N. Cockell, b Harkness	11
S. Platt, c Veale, b Kennedy	21
R. S. Le May, c Rook, b Kennedy	21
C. E. C. Kendle, c Purdon, b Rhys Evans	113
J. O. Anderson, c Veale, b Rhys Evans	12
A. L. Johnston, c Bond, b Harkness	45
R. D. Inskipp, b Rhys Evans	62
F. E. Lauder, c Harkness, b Bond	17
P. P. Lincoln, not out	0
P. L. Lincoln, lbw, b Bond	0
—. Preston, b Rhys Evans	8
Extras	22
Total	334

Lawn Tennis.

INTER-HOSPITAL SENIOR CUP.

These Cup Ties took place at Honor Oak Park on Thursday and Friday, June 8th and 9th, when Guy's won the Cup easily for the fourth consecutive year, beating London in the semi-final by eleven matches to one, and St. Thomas's in the final by eight matches to two.

GUY'S v. LONDON.

(SEMI-FINAL).

Guy's won by 11 matches to 1; 23 sets to 3; 149 games to 66.

SINGLES.

W. R. Reynell beat Leslie Powell, 6-1, 6-0.
A. S. Roe lost to A. A. Fyzee, 6-0, 1-6, 1-6.
R. Curle beat H. McLean, 6-2, 7-5.
L. A. Graham beat D. G. McRae, 6-0, 6-0.
R. H. Lucas beat L. C. Smith, 6-0, 6-0.
H. Sharpe beat J. H. Pendered, 6-3, 4-6, 6-2.

DOUBLES.

Roe and Reynell beat Powell and McRae, 7-5, 6-3; beat Smith and Pendered, 6-2, 6-1.

Lucas and Curle beat Fyzee and McLean, 6-3, 6-3; beat Powell and McRae, 6-1, 6-2.

Sharpe and Graham beat Smith and Pendered, 6-4, 6-2; beat Fyzee and McLean, 6-1, 3-6, 6-2.

GUY'S v. ST. THOMAS'S.

(FINAL).

Guy's won by 8 matches to 2.

SINGLES.

W. R. Reynell beat A. C. Gemmell, 6-1, 6-2.
A. S. Roe beat H. C. Attwood, 6-2, 6-3.
R. Curle lost to G. N. Brandon, 4-6, 4-6.
L. A. Graham beat A. D. Gardner, 6-0, 8-6.
R. H. Lucas beat W. Burt, 6-2, 8-6.
H. Sharpe beat A. C. Ballance, 7-5, 6-4.

DOUBLES.

Roe and Reynell beat Gemmell and Gardner, 6-0, 6-2; beat Burt and Ballance, 6-1, 10-8.

Curle and Lucas lost to Brandon and Attwood, 0-6, 5-7.

Sharpe and Graham beat Burt and Ballance, 6-1, 6-2; beat Brandon and Attwood, 6-4, 2-6, 7-5.

GUY'S 2ND VI. v. KING'S COLLEGE HOSPITAL 1ST VI.

1ST ROUND JUNIOR INTER-HOSPITAL CUP.

This match took place at Honor Oak Park on Wednesday, June 7th, and resulted in an overwhelming victory for us by nine matches to love, and if the present form is maintained we hope to retain the Cup. Score:—

SINGLES.

G. W. King beat C. E. H. Milner, 6–1, 6–2.
H. L. S. Griffiths beat A. S. Wakeley, 6–4, 6–2.
H. S. Groves beat S. Smith, 6–1, 6–1.
J. Totton beat H. G. Richards, 6–3, 6–4.
O. Morgan beat A. G. Gillette, 2–6, 8–6, 7–5.
R. Farrington beat G. Moore, 6–3, 6–0.

DOUBLES.

Griffiths and Groves beat Gillette and Richards, 6–4, 6–4.

King and Morgan beat Moore and Milner, 6–1, 6–1.

Farrington and Totton beat Smith and Wakeley, 6–0. 6–2.

GUY'S v. SOUTH CROYDON.

(SURREY CUP TIE).

By beating South Croydon five matches to four on Saturday, June 10th, at Honor Oak Park, Guy's have qualified for the semi-final of the Surrey Senior Cup, in which they meet Dulwich Farm on Saturday, June 24th.

Roe and Reynell beat S. Perry and P. W. Wingate, 6-1, 6-0; beat S. J. Jones and S. Smiles, 6-1, 6-3; beat F. H. Townley and C. C. Molesey, 6-4, 6-4.

Curle and Lucas beat Jones and Smiles, 6-4, 4-6, 6-2; lost to Perry and Wingate, 4-6, 4-6; lost to Townley and Molesey, 4-6, 0-6.

Sharpe and Graham lost to Townley and Molesey, 4-6, 5-7; beat Jones and Smiles, 6-0, 6-1; lost to Perry and Wingate, 4-6, 2-6.

Birth.

STEVENSON.—On May 26th, at 237, Chesterton Road, Cambridge, to Dr. and Mrs. C. M. Stevenson, a son.

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE.

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Passim.

WE were pleased to note that among the physicians selected for medical service in the Abbey during the Coronation there were five Guy's men, namely, Sir James Goodhart, Dr. F. Taylor, Dr. Hale White, Dr. Spriggs, and Dr. Still. Mr. Clement Lucas was one of the three surgeons selected for surgical emergencies occurring within the Abbey.

CORONATION DAY was fittingly celebrated in the Hospital, though in a mild manner. Funds were supplied for the Sisters to use at their discretion, and, as no entertainments could be given for obvious reasons, they were expended upon flags, small mementoes and food. The latter was much appreciated, from "'am" in Astley to strawberries and cream elsewhere. Gramophones were allowed to do their absolute worst all day, and "God Save the King" took the place of the evening hymns. Arrangements were made for the whole of the nursing staff to have either day off, and to see the illuminations at night. All the night nurses were given seats for the second day, and owing to the kindness of private friends, others interested in the hospital, and public bodies, all the sisters and many day nurses were also provided with seats.

AT a Court of Governors held on Friday, July 7th, Mr. E. C. Hughes was appointed fifth Assistant Surgeon to the Hospital. Mr. Hughes came to Guy's in 1901, qualified in 1904, and was House-Surgeon to Mr. Lane in 1905. In 1906 he became Resident Surgical Officer, taking the F.R.C.S. and M.C. in the same year, and in 1908 he was appointed Demonstrator of Anatomy. Everyone will be pleased, not only at the institution of the post of a fifth Assistant Surgeon, but also at the choice of Mr. Hughes to fill it, and we heartily congratulate him upon his appointment.

THE institution of this post will no doubt bring with it a number of other new junior appointments, although we believe nothing is as yet settled. An additional surgical out-patient day (or days) is undoubtedly needed, while any lessening of the time spent in the back surgery will, we feel sure, be welcomed by Assistant Surgeons' Dressers. Further, the time which patients in the wards are at present, of necessity, kept waiting before being operated upon will be lessened, and in consequence a greater number of patients will be able to be treated in the same number of beds.

WE are asked to announce an alteration in the days of Ophthalmic Out-patients. Mr. Ormond will, in future, see out-patients on Thursdays instead of on Wednesdays, so that the Ophthalmic Out-patient days are now as follows:—Mr. Eason, Tuesdays and Fridays; Mr. Ormond, Mondays and Thursdays. This arrangement will secure a better division of the week, and will be welcomed by those who would combine an interest in sport with the study of ophthalmology.

ALL who had the pleasure of listening to Professor von Müller's excellent lecture at the Hospital, on Thursday, June 29th, will have regretted that such occasions are not of commoner occurrence. Broad-mindedness is a quality greatly to be desired in medical men, and a close understanding of the ideas and feelings of foreign colleagues cannot but conduce to a broader outlook on medical science. No amount of reading about work done in other places can arouse the interest or understanding which personal contact with the originator induces. We would emphasize that it is the personal factor that counts, and what is wanted is an opportunity to see men work, and to hear them speak, on their own particular subject. That this feeling is general is shown by the fact that numbers of men now look upon a shorter or longer journey abroad as a necessary conclusion to their student days.

THE Professor's lecture, which we hope to publish in a future issue of the GAZETTE, was illustrated by an excellent projection lantern. Such demonstration of actual preparations is far more interesting and instructive than lantern slides or sketches, and we feel sure that the possession of a lantern such as the one used on this occasion would add greatly to the value of clinical and other lectures.

A NUMBER of new appointments to the Junior Staff have been announced. Messrs. G. H. Hunt and L. Bromley become Medical and Surgical Registrars respectively, and Mr. H. Lee is appointed Ophthalmic Assistant. Messrs. Davies-Colley and J. G. Saner go to the dissecting room, and Mr. H. Chapple becomes Gynæcological Assistant. It is essentially to the Junior Staff that men look for that teaching which will enable them to pass their examinations, and we feel sure that the length of pass lists bears a direct relation to the keenness of Registrars and others. An appointment on the Junior Teaching Staff entails a great deal of gratuitous and often uninteresting hard work, but we feel sure that the above-mentioned gentlemen will bring that enthusiasm to their new appointments that they have displayed in other spheres of hospital activity. We congratulate them heartily and wish them every success.

THE Residents' going-off dinner was held on Thursday, June 29th, and was much enjoyed by all present. A fitting successor to Mr. Saner, as President, was found in Mr. Lucey, and Mr. Poulton was elected to succeed Mr. Hunt as Vice-President. The speeches, as is usual on these occasions, were chiefly of a personal nature. Messrs. Saner and Lucey were mutually complimentary, and Mr. Hunt proposed his successor. Mr. Poulton proposed the off-going Residents and expressed our pleasure that Messrs. Hunt, Saner and Kahlenberg would still remain at the Hospital. Messrs. Neville-Cox and Dyce-Sharpe carry with them the general good wishes of the Hospital, and we hope to see them often amongst us in the future. During the evening Messrs. Eccles, Lewis, Hunt, and Lucey contributed songs, Mr. Trethowan accompanying. Were Mr. Lucey other than the on-coming President, we would suggest that if Medicine fails him, there is still a living to be made as a professional "nigger."

WE were extremely pleased to see that the system of out-patient demonstrations on selected cases has been adopted in the Genito-Urinary Department. The first demonstration was held on Monday, July 3rd, and a number of interesting cases were shown and discussed. The value of this method of teaching is undoubtedly great, since in no other way can the vast amount of clinical material which our numerous out-patient departments afford be utilised to such advantage. It is impossible for the senior student to attend every out-patient department, and such selection of suitable cases, which need not, and, in fact, should not, be rarities, enables the student to obtain a very varied and wide clinical experience. We feel sure that this method of teaching is greatly appreciated, and we trust that it may be adopted in other departments. Mr. Thompson intends holding such classes at intervals in the Genito-Urinary Department. We hope to publish the dates of the classes in the GAZETTE, and

notices of cases to be shown will be posted in the Colonnade.

The annual Garden Party, which was held on July 4th, was a great success. We do not remember a larger attendance, while the speeches were exceptionally good. A full report of Mr. Lyttelton's speech appears elsewhere in our columns; but his three don'ts, namely, don't quarrel, don't explain, and don't drudge, are so attractive that we feel impelled to dilate upon them. We must admit a desire to qualify, and would suggest, don't quarrel, unless you know you will win, don't explain unless you know you can convince, and don't drudge unless you have to! Unfortunately a great many of us have to drudge, but we feel strongly that the lust for lists and inches, and for other things, a knowledge of which can only be obtained by mental drudgery, must be ultimately bad for the standard of medical intellect. Most great medical discoveries have an inductive rather than a deductive origin, and one self-originated sequence of ideas is worth, in medicine, any number of "parrot" repetitions. Therefore, heretical though it may appear, we would say to those who would prepare for examinations by an extensive knowledge of text-book phrases, don't!

As was announced in our last issue, the 1st Tennis VI. have won the Inter-Hospital championship, and we have pleasure in recording that the 2nd VI. have been equally successful. Both cups are thus won by Guy's for the fourth year in succession, a result upon which the teams are greatly to be congratulated. Further, St. Bartholomew's having scratched in the final, the Water-Polo cup, for the fifth successive year, comes into the keeping of Guy's. As Dr. Hale White remarked at the prize giving, Guy's men play many games, and we are proud to say, play the majority of them well.

We have to record with regret the retirement of Mr. Maggs from the post of Dental Surgeon to the Hospital. When the Dental School was started in 1889, Mr. Maggs was appointed Surgeon, and has thus held office for a period of twenty-two years. The reason for Mr. Maggs' retirement is mainly a wish to give other and younger men the chance of succeeding to an appointment which he has himself held so admirably and with such honour to the hospital. Mr. Maggs qualified in dentistry in 1879, and took his M.R.C.S., L.R.C.P. in 1886; he has held numerous posts in connection with dental surgery, and was the President of the Odontological Society in 1900. The numerous dental men who know Mr. Maggs, as well as all Guy's men who know of him, will join us in wishing him good health and many years in which to enjoy his retirement. Mr. Parfitt now becomes full dental surgeon, Mr. Aubrey is appointed assistant dental surgeon, both of whom we congratulate.

The following letter was recently received from the mother of a patient with a cleft palate:

> "Dear Madam i rite to let you know we have mouved to another place, and to ask you it is time to bring Arthur Henry up as he gets worster drinking than ever and he is two years hold and runs all over the place and i thought it was time to bring him up as i think if he gets holder it will be worser for him.—Yours truly,
>
> Mrs. H———"

Arthur Henry is not a solitary sufferer, getting "holder" is "worser" for a good many of us.

Change of Address.

Niel Edgar, L.D.S., R.C.S. Eng., to Beulah Dene, London Road, Enfield.

C. D. Edwards, M.D. Camb., from Oxford Road, Cambridge, to "The Corderries," Chalford, near Stroud, Gloucestershire.

H. I. Janmahomed, M.D., F.R.C.S. Eng., from National Liberal Club, to "The Bower," Pedder Road, Bombay.

Captain H. C. Keats, I.M.S., to Jullundur, Punjab.

M. J. Rees, M.D., from Aberdare, Glamorganshire, to The College, Guy's Hospital.

Ernest E. B. Landon, M.R.C.S., L.R.C.P., D.P.H., from The Ingle, 271, Acton Vale, W., to Elderfield Gardens, Kidderminster.

George E. Rice, L.D.S., from 1, Abbey Mead, Tavistock, Devon, to Beverley House, High Street, Chesham, Bucks.

Claud B. Ticehurst, to Grove House, Lowestoft.

A. R. Wilson, M.B., B.Ch., B.A., from Bloxham, Oxon., to Edgewood, Lower Arrow Lake, British Columbia.

Annual Prize Day and Garden Party.

HELD on Tuesday, July 4th, the Annual Garden Party and Prize Day was an undoubted success. That terror to garden parties, the weather, favoured the occasion, and a large company was present.

The Governors and Staff assembled at 3 o'clock to meet the Rt. Hon. Alfred Lyttelton, K.C., M.P., and then proceeded to the Medical School Buildings, where the Distribution of Prizes took place. The chair was taken by Viscount Goschen, the Treasurer of the Hospital.

The annual report of the Medical and Dental Schools was then read by the Dean, Mr. H. L. Eason, as follows :—

THE DEAN'S REPORT.

The year 1910—11 has been most successful both for the Medical and Dental Schools. The general entry has been considerably above the average of many years past, and the number of Students from the Universities of Oxford and Cambridge who have come to Guy's has been larger than on any previous occasion.

In the Dental School also the entry has beaten all records, and the success of the policy adopted by the School in taking pupils for the period of instruction in Mechanical Dentistry has again been made evident by the steady increase in that department.

As a result of these increasing entries of Students the finances of the Medical and Dental Schools have shown a pronounced improvement, and the funds available for division among the teachers are larger than they have been for several years.

Changes on the Hospital and School Staff have not been numerous. Acting upon the recommendation of the Medical Staff, the Governors have sanctioned the creation of a fifth Assistant Surgeon, and Mr. E. C. Hughes has been appointed to this post. The Governors have also approved of a special Out-Patient Department for the treatment of diseases of Children, and have appointed Dr. H. C. Cameron as fifth Assistant Physician and Physician in charge of the Department of Diseases of Children. It is hoped, as soon as the necessary funds are available, to build a special Ward for Children under the age of seven instead of taking them as now into cots in the various Women's Wards of the Hospital.

To fill the vacancy caused by Dr. Cameron's promotion to the Staff, Mr. G. H. Hunt has been appointed Medical Registrar. To fill the vacancy in the Demonstratorship in Anatomy caused by the promotion of Mr. Hughes, Mr. R. Davies-Colley has been transferred from the Obstetric to the Anatomical Department, and in view of the fact that Mr. Thompson has relinquished his post as Senior Demonstrator of Anatomy, Mr. T. B. Layton has been appointed Senior Demonstrator to succeed him, and Mr. J. G. Saner has been appointed the third Demonstrator of Anatomy.

The vacancy caused by the transference of Mr. Davies-Colley from the Obstetrical Department has been filled by the appointment of Mr. H. Chapple as Obstetric Registrar and Assistant. Mr. J. H. Ryffel has been appointed Lecturer on Forensic Medicine, after having assisted the School in this capacity since the death of Sir Thomas Stevenson as Temporary Joint Lecturer.

In the Dental School the Staff have to record with regret the resignation of Mr. Maggs, who has been Dental Surgeon since the institution of the Dental School. His colleagues take this opportunity of placing on record their appreciation of his unwearying services to the School, the success of which is in no small measure due to his efforts during the last twenty-two years.

In the past year the Governors have sanctioned the appointment of two additional Assistant Dental Surgeons, and Messrs. Dowsett and Pearce have been appointed to fill these posts. To fill the vacancy caused by the resignation of Mr. Maggs, Mr. Parfitt has been promoted to full Dental Surgeon, and Mr. Aubrey has been appointed fourth Assistant Dental Surgeon.

Acting upon the advice of a Committee appointed to consider the subject, the School has decided that as soon as opportunity occurs a new department for the teaching and study of Pharmacology shall be created. It is proposed that there shall be a Lecturer on Pharmacology who shall have a laboratory specially reserved for his use, and that he shall have assistants both for the purposes of education and research. In the meantime, until this department can be created, the arrangements for the extension of teaching in Pharmacology have been entrusted to the Lecturer in Physiology, and an additional Demonstrator in the Physiological Department has been appointed with special reference to the teaching of Pharmacology.

On this occasion the attention of visitors is directed to the new laboratories for Chemistry and Physiology which are completed and now open for the use of Students. As was indicated last year, the erection of these laboratories was rendered necessary by the imperative need of the Dental School to acquire the adjoining laboratories for Chemistry and Physics with a view to enlarging its premises. This acquisition makes it possible to give much more room both to Students and dental patients, and the necessary structural alterations are to be put in hand forthwith. Provision will thus be made for over eighty dental chairs in the enlarged Conservation Room, in place of fifty as at present, whilst much more roomy laboratories will also be available for Mechanical Pupils and Students, and separate accommodation for Dental Metallurgy and probationary work.

The School has to acknowledge with the deepest gratitude an anonymous donation of £8,000 for the erection and equipment of a new Pathological Department. With the funds thus available a five-storey warehouse has been acquired in close proximity to the Post-mortem Room, and it is at the present time being converted into a Pathological Department, which will afford that ample accommodation for teaching and research which has been required so urgently by the School for many years.

The erection of the Chemical and Physical Laboratories and of the Pathological Department practically completes a series of building operations which were planned some years ago, but which have only been able to be effected as funds have permitted, and it may therefore be of interest in this connection to summarise the progress which has been made in the Medical School during the past quarter of a century.

Five-and-twenty years ago, with the exception of the Dissecting Room, no portion of the existing Medical School was built. The Medical School of that time was housed in the old Museum Block, which some years ago was pulled down, the space thus acquired being merged into the central garden or park. In 1890 the present College was built at a cost of £21,000; in 1892 the Dental School and the Chemical and Physical Laboratories, £5,000; in 1897 the Physiological Department, £13,000; in 1903 the Wills Library was equipped and furnished at a cost of £6,000; in 1905 the Gordon Museum, at a cost of £6,000; and a new Anatomical Theatre and Class Rooms, £3,000.

The new Chemical and Physical Laboratories just completed, together with some additions to the Medical School Buildings, will cost, approximately, £10,000; the new Pathological Department, £8,000; the new Dental Buildings and their equipment, approximately, £6,000.

It will thus be seen that a total expenditure of over £80,000 has been incurred by the Medical School since 1889. Of this amount the School has received over £20,000 by the munificence of the late Sir Frederick Wills, Mr. Robert Gordon, and anonymous donors. The remaining £60,000 has been provided entirely by the Medical School out of the Students' fees, the money either being borrowed from the Governors at definite rates of interest or raised by debentures held by the members of the Hospital and School Staffs. The interest and capital charges on this sum come to nearly £2,000 a year, and it is with the greatest pride that the School finds that in its present financial condition it is able both to pay these necessary sums and to provide a certain amount by way of remuneration for all its teachers, both those of the preliminary and intermediate studies and those of the clinical period. This, however, may not always be the case, and those responsible for the conduct of the School feel strongly that the only way of ensuring the permanent financial and educational success of the School in the future is to obtain adequate endowment. For the time being nearly all necessary building operations are completed, and it is anticipated that little more can be required for the next thirty years, by which time the debt upon the existing buildings will be paid off, and a fresh generation can start again unburdened by the debts of their predecessors.

An appeal is therefore made to-day to all those who have the interests of medical progress at heart to put the School of Guy's upon the same footing as the Universities and other places of higher education by the endowment of professorships and lectureships, so that the funds available from these sources, supplementing those derived from Students' fees, may be sufficient to ensure to the Staff of the Medical School a permanent remuneration more adequate to the distinguished services rendered by them to the cause of learning and research.

As will be seen from the short account given to-day, the Medical School of Guy's Hospital has to acknowledge, with the deepest gratitude, many great and munificent benefactions during the past few years. It is hoped that the example of these donors may stimulate others to continue the work so well begun, and so enable Guy's to maintain itself in a manner worthy of its great history and traditions.

The CHAIRMAN, in asking Mr. Lyttelton to distribute the prizes, said: I am sure that in any gathering of Englishmen, and also, I am sure, of English women, Mr. Lyttelton needs no introduction. We welcome him here to-day as a Statesman who, for many years of his life, has devoted his time to the service of his country with great earnestness and singleness of purpose. (Applause.) May I also say that we welcome him to-day as an Englishman of the true type, as a thorough sportsman, and one who, alike in his work and in his recreation, has always played the game? (Applause.)

Mr. LYTTELTON then distributed the following awards:—

LIST OF MEDALLISTS AND PRIZEMEN.

OPEN SCHOLARSHIPS IN ARTS.—Alexander Beckett Bond, Bradfield College, £100. John Arnold Molony Alcock, Radley College, £50. Samuel Vidot, St. Louis College, Seychelles, Certificate.

OPEN SCHOLARSHIPS IN SCIENCE.—Arthur Lisle Punch, Preliminary Science Class, Guy's Hospital, £150. Alfred George Simmins, Preliminary Science Class, Guy's Hospital, £60. John Frank Herbert Stallman, Dulwich College and Preliminary Science Class, Guy's Hospital, Certificate.

SCHOLARSHIP FOR UNIVERSITY STUDENTS.—Ronald Cathcart Ozanne, B.A., Hertford College, Oxford, £50.

OPEN SCHOLARSHIPS IN DENTAL MECHANICS.—October, 1910, Montagu Fred Hopson, £20. Max Schneider, Certificate. May, 1911, Arthur James Barber, £20.

JUNIOR PROFICIENCY PRIZES.—Arthur Joseph Eagleton Smith, £20. Frederick Charles Sedgwick Broome, £15.

The Beaney Prize for Pathology.—Nathan Mutch, £34.

The Michael Harris Prize for Anatomy.—Arthur Joseph Eagleton Smith, £10. Frederic Vivian Bevan-Brown, Certificate.

The Wooldridge Memorial Prize for Physiology.—Arthur Joseph Eagleton Smith, Frederic Vivian Bevan-Brown, equal, £5 each. Charles Hamilton Gould, Certificate.

First Year's Prize in Dental Subjects.—Thomas Eric Henderson, £10. Thomas Bernice Tustian, Certificate. John William Mayer, Certificate.

Second Year's Prize in Dental Subjects (1910).—Wilfrid Stephen Ollis, £10. William Hector Wotton, Certificate.

Second Year's Prize in General Subjects.—Guy William Enston Holloway, £10.

Prize for Operative Dental Surgery.—Douglas Wain, £10.

Newland-Pedley Gold Medal for Practical Dentistry.—Guy William Enston Holloway.

Golding-Bird Gold Medal and Scholarship in Bacteriology.—Frank Cook, £20.

The Oldham Prize in Ophthalmology.—Alan Herapath Todd, £30.

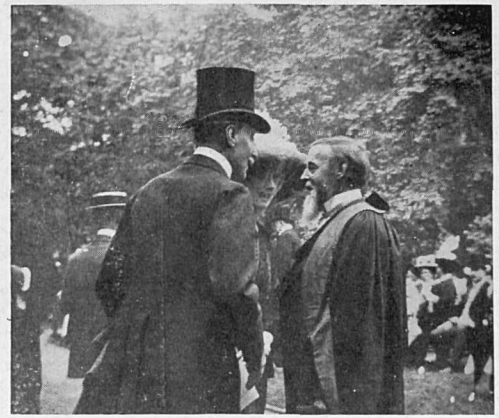
Treasurer's Gold Medal for Clinical Medicine.—Edward Palmer Poulton.

Treasurer's Gold Medal for Clinical Surgery.—Gerald Thomas Mullally.

Mr. Lyttelton afterwards addressed the company, as follows:—Lord Goschen, Ladies and Gentlemen,—It is a very fine July afternoon, and a garden party. I understand, takes place after these proceedings. Brevity, which is always a merit, under such circumstances becomes an obligation. And I suppose it was with the certainty of securing brevity that my friend the Treasurer applied to one who has been a lawyer, and is now a politician (laughter)—two professions celebrated for the condensation of their public speeches. (Laughter.) That appears to be taken as jocose, but let me assure you that a speaker is made by his audiences, and a judge listens to the most proficient advocate with ill-concealed impatience, while in the House of Commons the orator has generally to address those who are anxious to address him. (Renewed laughter.) I can scarcely imagine a more unsympathetic audience than that. Doctors have an enormous advantage over lawyers and politicians in that respect. Gravity—if there were not so many present I might even say pomposity—is, in the sick room, a merit; and at any rate, however ample and copious the lecture that a doctor gives his patient, he is secure of at least one enthusiastic listener. But I have, this afternoon, had the great pleasure of presenting the prizes to the successful students, and, though I do not speak from a very rich experience in this matter, I believe nothing is more exhilarating than the prizes gained in youth. They are free from those necessary alloys which gather around what we call the prizes of later life. How to maintain the quality which has gained them is the great question; and let me assure you that those who seek the great successes of life must go on improving long after the time at which the students have gained these prizes. For my observation of life has been that men who improve after 40 years of age—still more those who, though it may seem extravagant to you, improve after 50—are the people who conquer the world. And to do it, what is necessary? Above all, it is to keep fresh your intellectual interest. And to keep fresh intellectual interest, you need to keep, at any rate, this maxim in mind: do not work habitually harder than you can stand. The late Master of Balliol, Dr. Jowett, laid down a series of prohibitions—they are to be found in his Life—which begins with these three: don't quarrel, don't explain, don't drudge. (Applause.) Those three are all time-saving maxims. Quarrelling is disagreeable, and takes time (laughter); explaining when you have been in the wrong is disagreeable, and takes time; but drudging means the spending of that one hour over night which sterilizes two hours of the next morning. (Applause.) Do not think for a moment that I am urging anything like indolence. Those who have been here to-day and received these prizes have given a guarantee that they do not belong to the lazy class; but I assure you—and this will be more obvious to those who have the great experience which is possessed by those about me—that the great and noble medical profession is not a profession only of pure science; science and practice are its combination. And although a man may be a great scientific man, in practice if he does not keep the human side of him open, he may be, comparatively speaking, a failure. Practice keeps him human. It is one of the glories, one of the splendid attractions, of the medical profession, that you have everything that accuracy of speculation, of profound interest in research which science can give, while, at the same time, your blood is prevented from turning into ink, as that of some lawyers does, by the constant contact with men and women of all ages with whom some of the best and dearest friendships of your life are formed. Ladies and gentlemen, to the students it surely is unnecessary to say a word, after what I have been preaching about relaxation, with regard to the necessities for labour. Anyone with the least imagination can picture to himself the profound responsibility which must come before men of the medical profession. You are often unaided—sometimes you are quite young — as the great issues of life and death are presented before you. You all know that the balances of life and death in critical cases are often so finely poised that a little more skill, or

Mr. Arbuthnot Lane.

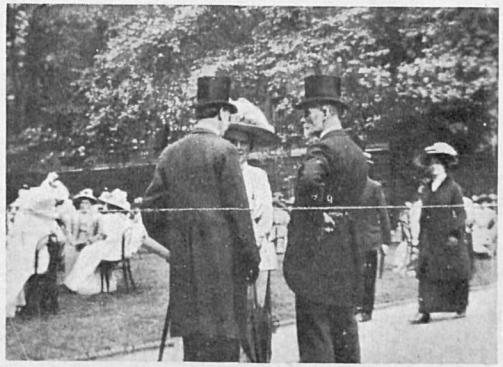
Dr. Hale White.



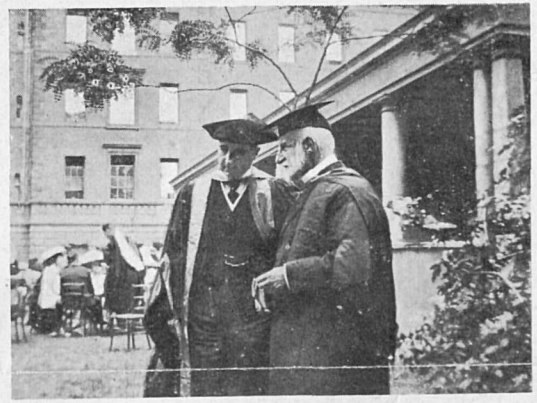
Sir Jas. Goodhart.

The Matron.

Sir Jas. Goodhart
and
Dr. L. E. Shaw.



Mr. Charters Symonds.



Mr. Clement Lucas.

PRIZE DAY.

[Photographs by Mrs. Shenton.

a little less skill, will mean the difference between a cure and a disastrous end. I can conceive no remorse that can possibly be more acute than that of a man confronted with these tremendous issues who should feel his hand paralysed by the fear of ignorance, or his mind staggering in that half-knowledge the glimmerings of which enable him to see, with a kind of confused bewildered insight, how hazardous the position is, and how the patient might entirely be saved if he were able to produce that skill the absence of which in that moment he must be most bitterly deploring. Ladies and gentlemen, the students who are present here to-day have given, in the time of life in which industry is not more palatable than in others, the best of all proofs that they do not mean to undertake the tremendous responsibilities of this profession and yet neglect the obtaining of the equipment which is necessary for them to face it. And it is because they have, at the outset of life, shown that they so much appreciate the mark of that great calling which is to be theirs, that I ask you to-day to give them what one cannot give to men in all professions, an unqualified and unhesitating wish for success. (Much applause.)

DR. W. HALE WHITE (*Senior Physician to the Hospital*): It falls to me to have the pleasant task of asking you to pass a hearty vote of thanks to Mr. Lyttelton for having come here to-day. No man can give more than his time. It is part of his life, and Mr. Lyttelton has sacrificed part of his life in coming here this afternoon to us, and distributing the prizes so graciously, and in addressing you with so much felicity. I cannot think that our Treasurer could possibly have made a happier choice than in asking Mr. Alfred Lyttelton to come here this afternoon. Just for two minutes I should like to indicate to you some departments of thought which bring Mr. Lyttelton in contact with all of us here. In the first place, it is a school of learning, where we try to acquire knowledge and to impart knowledge, and to make discoveries which will lessen suffering and help to cure disease. We by no means despise knowledge merely for the sake of knowledge; we believe thoroughly in abstract knowledge, whatever its practical use may be. But it does so happen that the knowledge which we acquire and impart here is of more direct practical use to the community, probably, than any other knowledge that is acquired. Mr. Lyttelton is a man of action and a statesman, therefore, I am sure, the knowledge which has immediate practical application will appeal especially to him. Then there is another side of Mr. Lyttelton's character in which he touches us. As our Treasurer told you, Mr. Lyttelton is known everywhere as a man who plays many games, and plays them well. Without any boasting, I think I may say that we, here, know how to play many games, and some people think that we play them very well. If there is any doubt on that point, you have only to go over the College and see the cups which are there. Indeed, there is no medical school that has obtained anything like the proportion of medals in competitions, and cups, which this school has. And the great public evidently do think that we can play games well, for at our last football match 5,000 people came to watch the game, in the middle of the week. (Applause.) Well, gentlemen, there is one more point I will burden you with, and only one, in which we touch Mr. Lyttelton. Everybody knows that Mr. Lyttelton has been Secretary of State for the Colonies. Now it is, I think, true that there is no medical school more closely bound up with the Colonies than this medical School. (Applause.) Mr. Lyttelton will be glad to hear that, I am sure. We have, for instance, my friend Mr. Symonds, who is going to second this vote; he is himself, I believe, a Canadian. We have, in the scholarships here, one given by Dr. Douglas, a Canadian, another given by Dr. Binnie, an Australian. Mr. Lyttelton probably noticed, when he came into the Hospital, a fountain on the left as he walked through the Colonnade. On that fountain there are inscribed a large number of names; they are the names of the various students of Guy's Hospital who died in the South African War. Whether you go to Australia, or South Africa, or New Zealand, you find numbers of doctors who were students at this school. We have many with us now, and we have had for many years past; and many of the best-known doctors in our Colonies were educated here. For my own part, I have many old house physicians in every large Colony to which this country is attached. If you go to Egypt, the head of the Egyptian Schools is a Guy's man, the head of the Medical Department is a Guy's man, and many of the principal doctors in Egypt were educated at this medical school. And so it is with all the larger Colonies. Not only is it so of the larger Colonies, but it is so also of the smaller Colonies. If Mr. Lyttelton ever happens to fall ill in the Falkland Islands, he will be attended there by a Guy's man. Or if, as is unlikely with such an athlete, he is nearly drowned in Lake Nyassa, when he is brought to shore he will be resuscitated by a Guy's man. The other day I came across a man from Wei-Hai-Wai, and I said, "Who is your doctor there?" He replied, "He is a man you know very well; he was educated at Guy's." We can go further than that. If Mr. Lyttelton should commit a crime in Jamaica, he will probably be called before the magistrate, who is a doctor and who was educated here. (Laughter.) So, whether it is the large Colonies or whether it is the small Colonies, I think you will find we have a very special connection with them. One of the men who was dressing with me went to a practice in the Seychelles, another to a practice in Trinidad, another went up the Islands in Hudson's Bay, and another, after he had been in practice some time, wrote to say he was sending me a present of the instruments which his patients used for killing each other. I opened the box, and found they were all of them stone implements. These persons had not emerged from the Stone Age, but they were citizens of this Empire, and at one time Mr. Lyttelton

was responsible for their lives. (Laughter.) Ladies and gentlemen, I feel sure that, recognising the many points of contact which we have with Mr. Lyttelton, you will not for a moment hesitate to pass him a most hearty and cordial vote of thanks for his kindness in coming here this afternoon.

Mr. CHARTERS J. SYMONDS (Senior Surgeon to the Hospital), said: My Lord Treasurer, Mr. Lyttelton, Ladies and Gentlemen,—I have great pleasure in seconding the vote of thanks which has been so ably proposed by my colleague. We have on many occasions met for the distribution of prizes, and we have had many interesting addresses, the most outstanding of all, perhaps, being that when His late Majesty the King, as Prince of Wales, gave his memorable address appealing for scientific research in medicine, an appeal which made so great a difference in, and has added so much to, the prosecution of research. We have had many eminent men, but I doubt—and I think you will agree with me—whether we have ever listened to an address which has been so interesting, so humorous, and so instructive. (Hear, hear.) We have had the pleasure of listening to one, as you have been told and as you know so well, who comes from a historic family, and who is an eminent lawyer, a distinguished parliamentarian, and who has the supreme honour of being a Privy Councillor. I must say to Mr. Lyttelton that he should not judge by the small number of students who are here to-day that the number at all represents any appreciable proportion of the hundreds who study here; and I would assure him that the small number is not at all indicative of lack of appreciation of his attendance to-day, or of interest in what he would say, but is rather due to our lack of accommodation, and to the desire to give place to those who are the friends and parents of the students. But I assure him his words will be read widely in our GAZETTE by large numbers of present students, as well as by many past students throughout the country and in the over-sea dominions to which Dr. Hale White has referred. I would also like to tell him that there are here to-day representatives of a number of institutions which flourish within these walls, the whole body of which would be glad to share in the appreciation which we offer to Mr. Lyttelton to-day. There are our nursing institutions, members of which are here in small numbers. There would be more of them here if there were more room, and they, sir, share in our appreciation. And while we thank Mr. Lyttelton for coming down in his busy life and taking part in this strictly local function, I will express the hope that he will carry away some impressions of this centre of medical life in the South of London. At least he will agree there is no lack of life and progress amongst us. We certainly shall not forget the compliment he has paid us, especially when we remember the distinguished position which he has held in the Government of our country; and when a change of party does take place, if it does, there can be no doubt that amongst the first of those who will be selected for a high office of State will be Mr. Lyttelton. (Applause.) I am sure you will agree with me—and I speak of the opinion not only of his own party, but of those of the other party who are best qualified to judge—that there will be no one who will discharge these high offices of State better than will the Rt. Hon. gentleman who has been good enough to be present to-day. (Applause.)

The vote was carried by acclamation.

Mr. LYTTELTON, in reply, said: My Lord, ladies and gentlemen, I am deeply indebted for the kindness of the two speakers who have moved and seconded this vote of thanks. Dr. Hale White has referred to the period of my youth—now, I fear, almost a pre-historic time—in which I had some connection with athletics. But, in order to correct the hilarity which such an association might possibly engender, he has referred to various places in the Empire, the Seychelles, the Falkland Island, Lake Nyassa—in which he has boded for me the most formidable misfortunes. Yet he consoles me with the thought that, deep as those misfortunes were, black though the crime might be for which, in Jamaica, I was indicted, there was yet hope for me if I should be able to plead before that august tribunal that I had on one occasion received a vote of thanks at Guy's Hospital. (Laughter and applause.) The profound gloom into which I have been cast by the thought of the misfortunes which he has anticipated for me has been cleared away by the solution which he has so kindly suggested, leaving me, as I trust it also leaves you, in thought that this afternoon may, at any rate, be an enjoyable one. (Applause.)

The CHAIRMAN: That is the conclusion of our proceedings here this afternoon, but I should like, on behalf of the other Governors and myself, to offer our most hearty congratulations to those students who have received prizes this afternoon. (Applause.)

During the afternoon tea was served in the colonnade quadrangles and on the terrace in the park. A large number of visitors took the opportunity of visiting the wards, laboratories, nursing home, and college, all of which were open to inspection. The Royal Meister Orchestra, under the conductorship of Mr. Eugène Maney, whose playing was much appreciated, gave the following programme:—

1. March, "Sangre Torera" (Erviti); 2. Valse, "Count of Luxembourg" (Lehar); 3. Selection, "The Arcadians" (Talbot); 4. *a*. Rêve, *b*. En Badinant (D'Ambrosio); 5. Spanish Dances (Mozkowski); 6. Valse, "Chocolate Soldier" (Strauss); 7. Selection, "Tannhaüser" (Wagner); 8. Dance, "In the Shadows" (Finck); 9. Romance, "Le Cygne" (Saint-Saëns); 10. Valse, "Septembre" (Godin); 11. Selection, "La Bohême (Puccini); 12. Berceuse de Jocelyn (Godard); 13. Morceaux, *a*. "O Sole Mio" (Boldi), *b*. "Still Wie Die Nacht" (Bohm); 14. March, "Bunch of Roses" (Chapi).

Sir Astley Cooper's Case of Ligature of the Abdominal Aorta.

IN looking over some letters of my uncle, Edward Osler, a student at the United Hospitals in 1816–18, I came across the following first-hand account of Sir Astley Cooper's famous case of ligature of the aorta, which is, I think, worth printing:—

"London, July 5th, 1817. ——, aged about 40, has a very large tumor on the upper and outer part of the left thigh. It projects considerably from immediately below the crural arch; it is very hard, immoveable, without any pulsation and rather of a more livid colour than healthy parts. It is not circumscribed, but gradually blended with the surrounding parts, and has an unequal knobby feel. It began about twelve months ago and has been gradually increasing. From the size, the situation, and from no pulsation being felt at the femoral artery, no doubt was entertained that it was an aneurysm of the external iliac artery very high up. Cooper thought of tying the common iliac, but I believe was afraid. I mentioned that I could indistinctly feel the descending branch of the external circumflex, and it is probable I was correct, as one of the branches probably formed a large anastomosis with one of the vessels of the pelvis. Towards the end of May every part was very hard except one spot, which was soft and fluctuating like an abscess. About the middle of June a line of ulceration began to appear, which extended, and at last formed an eschar as large as a crown piece. On the 24th of June (Tuesday) Cooper saw him. After he had looked at him he sat by his bedside for a few minutes buried in thought, without speaking to anyone. At last he started up with a smile (you know his look!), 'I'll do it, but I'll wait for hæmorrhage.' He had not long to wait. On Wednesday afternoon the patient lost eighteen ounces of blood, and Cooper was sent for. He had taken a subject in the dead-house and operated on it through the abdomen and from the side (for the iliac). The first he found easy, the other utterly impracticable. The patient was brought to the theatre, and Cooper made an incision immediately above Poupart's ligament, just large enough to introduce his finger that it might plug the wound. His object was to find the mouth of the artery and thus command the hæmorrhage, and then cut down on it and secure it. He found, however, that the artery was ulcerated higher than he could reach, and that the common iliac itself was affected. He therefore had a plug to fit the wound, which he introduced on withdrawing his finger. He now determined to put a ligature on the aorta. He made a longitudinal incision, about 2½ inches long, on the left side of the umbilicus, about an inch from the linea alba, cutting through the rectus. He introduced his finger, and pushing the intestines away felt for the aorta, tore through the mesocolon with his finger, separated the artery, and, looking round, said, 'Gentlemen, I have the pleasure of informing you that the aorta is now hooked up on my finger.' An aneurismal needle was now carried down under the vessel, and it was tied with facility. The operation indeed was by no means difficult or tedious. The ligature was left hanging out at the wound, which was united by the quilled suture. A dose of tinct. opii. was administered and he had a good night. On Thursday he was very cheerful and sanguine in his hopes of recovery. Both limbs were nearly of the natural temperature; he had no affection of the head or pain in the abdomen. Even Mr. Cooper and Mr. Travers had very great hopes of him, as the circulation was evidently affected in the inferior extremities. His pulse was above 110, of natural strength, and there was no throbbing of the carotids. When I went to see him on Friday morning, after writing you, a great change had taken place. His pulse was above 120 and weak, not at all thready, but above the natural fulness and very soft and feeble, as if the artery were not half full of blood. His face was pale and contracted, his eyes dull and heavy, and he seldom opened them; his left leg was cold, as were his extremities. He had passed a restless night and had slept very little. At one o'clock he died."

Erichsen's comment may be quoted:—"It is impossible not to comtemplate with admiration the man whose mind was the first to conceive, and whose hand was the first to carry out, the determination to apply a ligature to the abdominal aorta."

WILLIAM OSLER.

Oxford, June 24th, 1911.

Appointments.

Medical School Appointments.

The following appointments and reappointments have been made by the Treasurer upon the recommendation of a Staff Meeting :—

MEDICAL SCHOOL.

Medical Registrars.—Messrs. Rippmann and G. H. Hunt.

Surgical Registrar.—Mr. Bromley.

Obstetric Assistant.—Mr. Chapple.

Demonstrator of Operative Surgery.—Mr. Layton.

Demonstrators of Anatomy.—Messrs. R. Davies-Colley and J. G. Saner.

Demonstrators of Physiology.—Messrs. Kennaway and Ryffel.

Demonstrators of Chemistry.—Messrs. Ball and Merriman.

Demonstrator of Biology.—Mr. Reed.

Clinical Analyst to the Wards.—Mr. Ryffel.

Ophthalmic Assistants.—Messrs. Anderson and Lee.

Anæsthetists.—Messrs. Shipway, Page, Davies-Colley and Townrow.

Anæsthetist to Bright Ward.—Mr. Layton.

Junior Assistant Bacteriologist.—Mr. Browning.

Resident Medical Officer in Bright Ward.—Mr. G. Dunderdale.

DENTAL SCHOOL.

Demonstrators of Practical Dentistry with Charge of Revision Classes.—Messrs. Malleson and Doubleday.

Demonstrators of Practical Dentistry with Charge of Probationary Classes.—Messrs. Edgar and Hodgson.

Demonstrator of Operative Dentistry.—Mr. Chapman.

Demonstrators of Prosthetic Dentistry.—Messrs. Charles and Tomes.

Demonstrators of Dental Microscopy.—Messrs. Dowsett and Kennaway.

Curator of Dental Museum.—Mr. E. B. Dowsett.

Military.

The undermentioned Captain, R.A.M. Corps, to be Major, dated 4th June, 1911 :—Chas. R. Evans.

Captain H. C. Keats, I.M.S., has been appointed Civil Surgeon at Jullundur, Punjab.

Civil.

C. F. Routh, M.D., B.S. Lond., D.P.H. Camb., has been appointed Physician to the Portsmouth Eye and Ear Hospital.

Royal College of Surgeons of England.

R. Lawford Knaggs, M.D., F.R.C.S., has been elected on the Court of Examiners in one of the vacancies caused by the retirement of Mr. C. T. Dent and Sir F. Eve.

The following appointment of Examiner for the Diploma in Tropical Medicine is announced :—

Bacteriology : Dr. John W. H. Eyre ;

and in the subjoined subjects the appointments are as follows :—

Physiology : E. H. Starling, M.D., F.R.C.P.

Anatomy for the Fellowship : C. H. Fagge, M.S., F.R.C.S.

Midwifery : J. H. Targett, M.S., F.R.C.S.

Local Government Board.

M. J. Rees, M.D., has been appointed Medical Inspector.

Pass List.

Cambridge University.

THIRD EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.

Easter Term, 1911.

Part I.—Pharmacology and General Pathology.

Examined and approved.

Garrett, G. W. B. | Heaton, R.
Jarvie, J. M.

Part II.—Surgery, Midwifery and Medicine.

Examined and approved.

The following have now satisfied the Examiners in all three sections :—

Depree, H. T. | Sandison, A.
Webster, V. T. P.

EXAMINATION FOR THE DEGREE OF M.C.

Easter Term, 1911.

Examined and approved.

Chapple, H. | Crook, A. H.

Degrees Conferred.

M.B., B.C.—Bromley, L.

M.D.—Palmer, A. S. M.

Royal College of Surgeons of England.

FINAL FELLOWSHIP EXAMINATION.

Janmahomed, H. I.—M.D.

Royal College of Surgeons of Edinburgh.

Admitted to the Fellowship : E. B. Hinde.

Society of Apothecaries of London.

Medicine, Section I. : Edmeades, L. K.

Fistula in Ano.

CLINICAL LECTURE BY F. J. STEWARD, M.S.

If I happen to ask the cause of fistula in ano, the reply which is almost invariably given is, that it is caused by ischio-rectal abscess. That is true in a sense, but only in a sense, because ischio-rectal abscess is not by any means the usual cause. I will, therefore, say a word or two about causation. The common cause is suppuration in what may be called the peri-anal tissue—that is to say, the cellular tissue which lies under the skin about the margin of the anus, and superficial to the external sphincter: in other words, anal abscess. Anal abscess may be brought about in several different ways. Any small abrasion or fissure at the anal margin may become infected, setting up a cellulitis, resulting in an abscess, which bursts, and so causes fistula in ano. Foreign bodies may also cause anal abscess, although I am not sure that all the cases said to be due to foreign body are correctly so described, for fish-bones, etc., may quite conceivably get into a fistula after it is formed. Not long ago I operated in a case of fistula which had gone on for some time, in a man æt. 38, and I found at the angle between the two limbs of the fistula a little piece of fish-bone; it is doubtful which was there first, the fish-bone or the fistula. There is a general impression again that fistula in ano is very commonly tuberculous. In some of the books tubercle is stated to be practically the *chief* cause of fistula; but a careful estimation has shown that the tuberculous cases are only about 10 per cent. of the whole. But you should remember in this connection that not all fistulæ in tuberculous patients are tuberculous. A fair number of subjects of bad phthisis get fistulæ but their fistula is not necessarily tuberculous. Again, a person with chronic fistula may get run down in general health, and may in consequence be attacked by tubercle; or if he has got old tubercle in his lung, it may light up when he gets run down by a fistula. So because a patient has phthisis and fistula, do not conclude that the latter is tuberculous, and give a hopeless prognosis. The commonest cause, then, is ordinary anal abscess, due to fissure, or some abrasion or injury to the bowel, possibly caused by a foreign body or by the passage of hard fæces. Then we come to rarer causes, such as tubercle, ischio-rectal abscess, disease of the coccyx, stricture, and growths which occasionally cause fistula below. Finally, in a few cases the cause lies further forwards, viz., in the urethra or prostate.

Now for one or two points in connection with the anatomy of fistula in ano. There is a very general impression that fistula passes deep to the external sphincter; consequently, if I ask what structures are divided in operating for fistula, men will say, as a rule, that the external sphincter is divided. As a matter of fact, however, the common type of fistula lies superficial to the external sphincter, as shown in Fig. 1:—

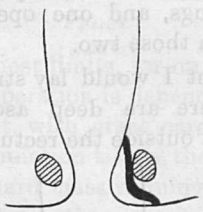


Fig. 1.

As the division of the necessary tissue in such a case does not involve the external sphincter, the patient's subsequent continence is not jeopardised.

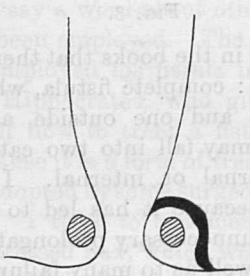


Fig. 2.

Fig. 2 illustrates the position of a much rarer form af fistula.

In such a case it will be necessary to divide the sphincter muscle, and so for a time the patient will lose control over the act of defæca-

tion. This is the form of fistula in ano which results from ischio-rectal abscess. That point as to the relationship of the fistula to the external sphincter was some years ago carefully worked out in the post-mortem department of Brompton Hospital by Mr. Godlee, and he found that in most cases of fistula the sinus was superficial to the external sphincter. With regard to other points, as a general rule, in ordinary fistula in ano, the opening tends to be at the back part of the anus. Most of them open behind a transverse line drawn across the anus; so in trying to find if there is an internal opening (and it must be remembered that there nearly always is one), the posterior wall should be examined first. Occasionally, again, the fistula may pass round the posterior margin of the anus, causing what is known as a horseshoe fistula, and open on the opposite side. Another form of horseshoe fistula which is fortunately fairly uncommon is that in which there are two external openings, and one opening into the rectum between those two.

Another point I would lay stress on is, that very often there are deep ascending tracts running up just outside the rectum as in Fig. 3:

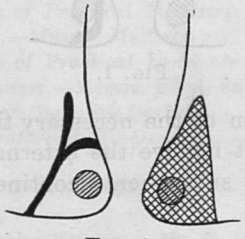


Fig. 3.

You are told in the books that there are three kinds of fistula: complete fistula, which has an opening inside and one outside, and a blind fistula, which may fall into two categories and be either external or internal. I warn you against that, because it has led to very many mistakes and unnecessary prolongation of convalescence, as well as to many failures in treatment. The reason is that, although the fistula may appear to be blind, in the vast majority of cases it is not blind. You will see the bearing of this upon treatment. A man comes with symptoms of fistula; you find an external opening, but you cannot find an internal one. You may, in consequence, open this external track and fail to open the track into the bowel, with the result that the patient may lie in bed a month or more, and the fistula may relapse and never heal, because you have not opened it up completely.

With regard to the symptoms of fistula, the commonest which is mentioned by the patient is discharge. Many patients tell you that the only trouble they have is that the parts are constantly moist, and their linen is soiled by the discharge. The discharge is usually pus, and varies in amount. The patient often says there is a discharge for two or three days, then it is apparently dry for a day or two, and then it breaks out again. When the internal opening is large there may be fæces or flatus coming through the fistula. Another symptom is pain; but though this is mentioned in all the books it may be absent altogether; there may be only discomfort. Sometimes, however, pain is very severe. I have notes of a case which I operated upon a year ago—a man, 35 years of age, who had agonizing pain every time he went to stool, and he had obvious fistula as well. We found, at the operation, that the pain was due to the fact that there was a fissure, and therefore was not due directly to the fistula. So if a patient with fistula complains of severe pain on defæcation you must be on the look-out for fissure as well.

The third local symptom to note is pruritus, and that is very important, because many people are treated for pruritus for years without the fistula causing it being discovered. If a patient complains that there is some secretion about the part, and that he gets intolerable itching every night, and you find that the skin round the anus is red, and very likely unusually pigmented, you must look carefully for a fistula. It is not uncommon, in such a case, to come across a blind internal fistula. There may be an abscess which opens into the lumen only, without an external opening through the skin. Those then are the usual *local* symptoms: discharge, pain, and, in a certain proportion of cases, pruritus. Suppuration here, however, does not differ from suppuration in any other part of the body; it leads in time to general

depreciation of health and loss of weight. These patients frequently complain of feeling unusually tired, and of being unable to get through their work. Many of them are anæmic. In consequence of their ill-health they are more liable to such infections as tubercle, and in that way you get one form of association between tubercle and fistula.

The most important part of the subject is treatment. In the first place, in a few cases—very few—a small simple fistula in ano may be cured without operation. But in over 95 per cent. of cases cure is only reached by operation. The reason is that drainage is not satisfactory without operation; and, secondly, re-infection is likely to occur from the bowel if operation is not performed. The operation consists in division of all the tissue which lies between the fistula and the skin. First you must find the opening into the bowel, and that is done most satisfactorily by examination with the finger. If there is fistula in ano, by palpating round the anal margin you can nearly always feel the induration which follows the line of the fistula, and if you make out from the outside the line which the fistula has taken and then pass the finger inside the anus you will nearly always, near the margin, feel the internal opening. It is frequently missed by feeling too high up. Carefully palpate the muco-cutaneous margin, and in nine cases out of ten you will feel the opening. If you cannot feel it you must satisfy yourself there is no opening there, before you conclude that the fistula is a blind one, by other methods of examination. Examine the patient under the anæsthetic at the time of operation and pass in a rectal speculum, carefully separate the blades, and examine the surface of the mucous membrane by artificial light; and in this connection a head lamp is very useful, because it will concentrate the light on the spot that is being examined. But the opening may be one which you cannot see. You must then try the effect of injecting something through the outer opening, something which you can see as it comes through the internal opening. Some surgeons use milk, but I prefer a solution of methylene blue. With that the tract of the fistula becomes rapidly dyed, and you can see the coloured solution coming through any opening that there is on the mucous surface of the bowel. Having found the internal opening you pass a probe from one to the other, and then a steel director. Tilting the base of the director upward the point is brought down, and a sharp pointed bistoury is passed along the director. In this way you completely divide the tissues between the fistula and the skin. The surface of the wound must now be very carefully examined under a good light with probe and finger, so that all outlying extensions may be discovered. These must each in turn be opened

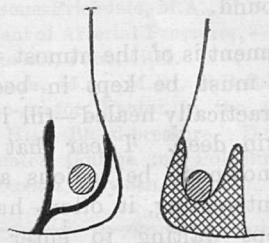


Fig. 4.

up to their furthest limits, for on this the whole success of the operation is dependent (*vide* Figs. 3 and 4). Next, with great care, scrape away every bit of granulation tissue, then on palpation you will feel a hard mass running along the wall of the sinus; that is the cicatricial tissue which has been gradually formed during the time the fistula has lasted. Division of that tissue makes it more pliant, and the parts will heal more readily. The wound is packed with gauze or wool, and a pad and T-bandage put over it.

I will now say a word about other treatments which have been employed. The earliest treatment ever employed for fistula is that recommended by Hippocrates, who gives a careful description of how to treat a fistula. It is interesting because it is a form of treatment which is said to be adopted by some surgeons even at the present day. I refer to treatment by ligature. He used undressed flax, which was corded over with horse hair, by means of an instrument passed from the outer to the inner opening, the instrument having an eye like our ligature needle. It was tied tightly and gradually cut its way through, the surface healing behind it. The objection is that it may become septic and lead to local inflammation, swelling, and pain.

Another method is suture of the fistula. If the fistula is a simple straight one the whole wall of the fistula may be excised, and the wound closed with deep sutures, instead of leaving it open. Although the result, if it is successful, may be brilliant and save the patient weeks of convalescence, it is very likely to fail for two reasons: firstly, because the surface left is probably infected, and, secondly, because the tract may not be so simple as it appeared and you may not have satisfactorily opened outlying continuations of the fistula, so that some suppurating point will be left which will re-infect the whole wound.

After-treatment is of the utmost importance. The patient must be kept in bed until the wound has practically healed—till it is, at any rate, only skin deep. I fear that as cases of fistula are known to be tedious and are not considered interesting, it often happens that they are kept waiting to enter a hospital, and are often not satisfactorily treated when they are admitted. I have more than once seen cases of relapse due to inefficient after-treatment. Success depends entirely on getting the wound to heal absolutely from the bottom, and therefore it must be dressed daily and syringed over after the bowels have acted. Another point about treatment is with regard to tuberculous fistulæ. If you see a patient who has severe phthisis and who has a fistula which may be tuberculous, the question sometimes arises as to whether it is wise to operate at all. Each case must be decided on its merits. If the case is not desperately bad, since the patient has got two tuberculous processes, or one tuberculous and one suppurating one, removal of the fistula may enable him the better to combat his phthisis. Therefore, most patients should be given their chance. Careful consideration should be given to every case, because suppuration *plus* phthisis going on continually must almost certainly end fatally. So that, except in hopeless cases, I think operation should be performed. Chloroform, given carefully to a patient with even bad phthisis is not very risky; ether is the anæsthetic which does most harm. If the fistula is not tuberculous, but the patient has phthisis, then if the lung is not very bad you must operate on the fistula.

Now a word as to failure. I have seen many cases in which relapses have occurred after operation for fistula. Three weeks ago we had a boy at Out-patients who had been in hospital three times already for fistula operations. Originally he had had ischio-rectal abscess, which was treated in the hospital. He went out, and on two occasions since then he had had operations, and had relapsed. What is the cause of failure in the treatment of such a case of fistula? I have told you one is unsatisfactory after-treatment. If you divide the tissues between the two openings, and if the wound is not kept carefully packed until it granulates from the bottom, the surface will become bridged over, so that the fistula remains and continues to suppurate, as the original fistula did. The other common cause is that the operation itself has been incomplete, and that there have been branches of the fistula which have escaped opening at the time of the operation and have led either to re-infection and fresh suppuration along the healed tract, or to the formation of a fresh fistula in connection with it. These are both things which depend on the surgeon. But there is another cause of failure or relapse after operation for fistula, and that is something in the constitutional condition of the patient, and, of course, refers most often to cases in which there is tuberculous disease. Either the fistula or the patient is tuberculous; and in some of these cases the condition will not heal, however carefully you open up and drain it and keep it clean; no change, apparently, takes place from week to week. You can only attend to the general health as far as possible, and, if he can afford it, send the patient to the Isle of Thanet. That is where they seem to do better than anywhere else. Also try the application of silver nitrate, weak solutions, and red lotion to the surface of the fistula. But if the operation has been complete in a healthy patient, and every branch has been opened up, you will find the results are extremely good.

Hospital Chapel.

THE Chapel Committee has pleasure in presenting the following report for the year ending Easter, 1911:—

There has been no alteration in the Chapel services.

Shortly before Easter the Rt. Rev. E. S. Talbot, D.D., Bishop of Southwark, on his translation to the See of Winchester, resigned the Chaplaincy of the Hospital, which he had held since September, 1898. He paid his last official visit on the evening of Ash Wednesday. The Committee wish to record their gratitude to him for the kindly interest he took in the Hospital. His successor in the See of Southwark, the Rt. Rev. H. M. Burge, D.D., lately Headmaster of Winchester College, has been offered and has accepted the Chaplaincy in his place. Bishop Burge hopes to pay his first visit to the Hospital Chapel on Friday evening, July 7th.

There has been also during the year a change of Assistant Chaplain. The Rev. A. Handel Smith left the Hospital in October last to take up work at Cote Brook, Tarporley, Cheshire. His place has been filled by the Rev. C. A. S. Luxmoore-Ball, who comes to us after four years work at S. Andrew's, Croydon.

The Committee has again to express its thanks to Mr. Clive Carey for his careful and energetic oversight of the Chapel music. For the second time a service of Passion music was held in the Chapel on Good Friday evening. The rendering of portions of Bach's Passion according to S. Matthew was both impressive and devotional. Some special music was also given at Christmas and at the Harvest Thanksgiving.

It is to be regretted that there has been a noticeable falling off in the attendance of the members of the Students' Choir. Many of those who gave regular help have left the Hospital, and it has been a matter of great difficulty to find others to take their place. We would appeal to all who care for the Chapel and its services to attempt to create a new enthusiasm for so essential a part of our Chapel worship.

The Committee desires to express its gratitude to all those clergy who kindly preached at the Advent and Lent services, and on other special occasions.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs.*

Papers by Guy's Men.

Cecil Price-Jones, M.B., Salter's Scholar, Middlesex Hospital Cancer Research Laboratories, and S. H. Browning, L.R.C.P., M.R.C.S., Bacteriologist to Moorfields Eye Hospital: Note on the Blood in Sympathetic Ophthalmia.—*British Medical Journal*, June 17th, 1911.

E. Graham Little, M.D., F.R.C.P., Physician, Skin Department, St. Mary's Hospital: On the Value of Urinary Examination in Dermatological Practice with Special Reference to the Joulie Reactions.—*Practitioner*, July, 1911.

D. D. Malpas, M.D., and another: A Case of Appendicitis illustrating the necessity of Early Operation.—*Lancet*, June 24th, 1911.

J. M. Fortescue-Brickdale, M.A., M.B., B.Ch. Oxon: The Measurement of Arterial Pressures.—*Bristol Medico-Chirurgical Journal*, June, 1911.

Herbert French, M.A., M.D., F.R.C.P.: A Lecture upon the Vaso-motor Factor in the Causation and Treatment of High Blood-pressure. Delivered at the Medical Graduates' College and Polyclinic, London.—*The Clinical Journal*, July 5th, 1911.

From the Gazette's Special Pathologist.

NOTICES.

ALL specimens—particularly those of solid tissues—should be accompanied, if possible, by a short clinical and post-mortem history, and a postal order for 2s. 6d. An extra charge of 6d. per slide is made when prepared sections are to be forwarded.

Directions to be followed in sending *Diphtheritic Membrane*;—Remove as much of the membraneous exudation as possible with a pair of forceps, which have been sterilized by boiling water. Place the exudation in a small, perfectly clean empty bottle, with a well-fitting glass stopper, and forward without delay. No preservative fluid should be used. The specimen must be accompanied by a Postal Order for 5s. A telegram will be despatched immediately the examination of the specimen is completed.

Diphtheria specimens are to be labelled *Immediate*.

Specimens, Letters, and Postal Orders should be addressed to the MANAGER, Gazette Office, Guy's Hospital.

F. D. C., HIGHAM FERRERS.—This growth of the gum is a myeloid epulis. It is composed of a spindle-celled matrix containing numbers of giant cells, and is associated with marked inflammatory changes. The growth has a low degree of malignancy, and will not recur if completely removed.

PATHOLOGIST.

Sir James Frederic Goodhart, Baronet.

THIS is his proper style and title now. To those of us, however, who got to know him at Guy's in the intimate personal way we have, whether as fellow-students or as students and teachers, he always was and he always will be—just "Goodie." But we are glad that less fortunate people who know him less intimately and have to use some formal designation should be privileged to use a title which, as the world accounts these things, is more in accordance with his deserts. We have never been quite able to understand why the powers that be did not do their duty in this matter ten or twenty years ago; yet we should not have been at all surprised if they had not done it even now. The qualities that we at Guy's most admire and respect in our latest Baronet are not those which generally lead to Birthday or Coronation honours. Even when those who compile these lists came to realise that a long overdue title had to be offered, the chances were ten to one that the person most concerned would see some modest reason for leaving things as they were. He has, however, accepted it, and we hope that the universal acclamation with which the announcement has been received by the profession will assure him that he has done well. We are confident that if such honours were conferred by the free vote of the profession that the result would have been the same, only earlier secured. In this connection it is interesting to note that there is a general consensus of opinion that the three representatives of English Medicine and Surgery amongst the Coronation Baronets have been so wisely chosen that the profession itself could not have made a better selection. To have Butlin and Osler as his colleagues will be as gratifying to Sir James Goodhart as it is to their medical brethren generally to have in a single list three such splendid representatives of all that is best in our profession.

At a time like this when the outside world claims its share in one of our household gods and exercises its right to decorate him, it is useful for us to take count of the reason for our personal worship. Thus may others be encouraged to be worthy of our esteem and to escape the sad fate of those who receive the plaudits of the populace while having no place on the altar of their home.

Sir James Goodhart's foremost place in the regard of the profession has been won by hard work and by the unremitting exercise of exceptional inborn talents. Anyone who will look at the indices of the Transactions of the Pathological or Clinical Societies of thirty years ago or of the Guy's Hospital Reports of the same period will gain some slight idea of Dr. Goodhart's extraordinary industry. If he will turn to any of the numerous papers to which these indices refer, he will be struck by the directness and sound common sense of the author's work. Dr. Goodhart shows himself in these writings to be a patient and acute observer, one of the most brilliant of the long line of Guy's Morbid Anatomists, which, amongst his immediate predecessors, included Wilks, Moxon, and Fagge. A little later we find Dr. Goodhart turning his wonderful knowledge of morbid anatomy to good account in his clinical work. In his classical book on Diseases of Children and in numerous addresses on clinical subjects, we begin to see evidence that his industry and common sense are combined with a sympathetic temperament which gives him a keen insight into human nature. In his Diseases of Children the reader learns not only about the physical causes and the treatment of the disorder, but all that the child thinks and the mother feels about it. Those of us who have seen him tackling a fractious child and a fussy mother recognise that we have no mere pathologist or therapeutist to deal with, but a man with a wonderful personal attraction, who knows of and sympathises with all the frailties of his patient. The possession of this personal magnetism is at once the medical practitioner's greatest possession and his greatest danger. He who has it in large measure holds his patients in the hollow of his hand. To the quack, qualified or unqualified, it means untold gold; to the honourable physician an unlimited opportunity of doing good. Dr. Goodhart has placed his rare talent ungrudingly at the service of his medical colleagues, and has, in consequence, been called upon for a greater measure of truly consultative work than any other physician of his time.

In this regard, there has arisen the only suspicion of a lovers' quarrel that we at Guy's have ever had with him. Pressed on all hands by private calls upon his time, Dr. Goodhart resigned his post of physician to Guy's Gospital several years before the natural termination of his appointment. Everyone knows that he was chiefly actuated in this step by his desire to make way for younger men anxiously awaiting an opportunity of promotion. The medical press at the time drew attention to the want of elasticity of the arrangements at the great hospitals which made it impossible to continue to make use of their most brilliant teachers except by requiring from them an amount of routine work which it was not feasible for them sometimes to give. We do not know whether this question has since received consideration, but it seems to be of considerable importance, even though it may be of only occasional application. This lovers' quarrel was as short and its ending as sweet as such quarrels always are, and we have rejoiced to think that our loss has been other people's gain. If we at Guy's have seen less of him than we should have liked, Guy's men and other men all over the country have been able to see more of him, for their patients' benefit and their own satisfaction.

And now past and present Guy's men unite in offering to Sir James Goodhart their heartiest congratulations on his Baronetcy and their sincerest wishes that he may long be spared to continue his unselfish work for the advancement of the profession and for the good of the public.

The X-Ray Treatment of Malignant Disease.

BY E. W. H. SHENTON.

ANY treatment that deals with malignant disease must stand the test of time before a fair estimate of its value can be formed. Much was written in early days of the effects of X-rays on cancer, and many astonishing results were seen in the way of rapid effect, which in some cases are lasting and in others merely transitory. Little has been written recently of cases which have been under observation for a long time, and I think a general survey of fourteen years of the work of one worker cannot fail to be of interest and instruction.

Some years ago I wrote an article, entitled, "The Deterent Action of X-rays in Malignant Disease,"* and the opinions I expressed then I hold now. The rays have proved, in all cases, that their action is inimical to new growth. I can hardly recall a single instance in which a check to the growth was not apparent after a few exposures. There have been many cases where this check has been of short duration and the growing power of the neoplasm has easily outstripped the deterent action of the rays; many more where these two have been equally balanced, so that the condition has remained *in statu quo*, and a few where the rays have apparently got the upper hand and the growth has receded and disappeared. These latter are, unfortunately, few, but in my own experience have been an epithelioma of the tongue, a cancer of the cervix, and a rectal epithelioma. I could also count some schirrus of the breast cases were it not for the fact that in all these a lump remains, and though this might well be merely an inflammatory mass, or fibrous tissue from its behaviour, it would be impossible to say that the disease had disappeared without actual microscopic demonstration of the fact.

There are cases where the local effect of the X-rays is almost miraculous, but where, owing to the involvement of deep-seated organs, a cure is impossible.

In one case of schirrus of the breast which was under my care for over four years, after two operations—one for removal of the primary growth, the other for a recurrence in the scar—I witnessed the disappearance of over a hundred subcutaneous nodules, several infected supra-clavicular glands, and a deposit in the lumbar cord (the latter, of course, merely suspected by symptoms). The patient, a middle-aged lady, of extremely poor physique, who had had symptoms of phthisis for several years previous to this breast trouble, was, as far as it was humanly possible to judge, kept in fair health and free from pain by the constant application of the rays. She died at the expiration of the fourth year, apparently of heart failure; certainly there was no objective signs of malignant disease being the cause of death. I think anyone who had watched this interesting case could not have failed to be struck by the deterent action of the rays upon these foci of cancer cells.

The type of breast case which, in my experience, does best is the elderly woman from 55 onwards. There are some people of advanced years to whom an extensive operation would mean great risk, and who would not recover completely from the consequent shock. Several such I have watched; they have usually been of such physique that the surgeon has decided that X-ray treatment was preferable to operation. The influence of the rays has been first evidenced by a slight diminution and softening of the lump, accompanied by slight sensations, later by a complete cessation of all attempts to increase in size.

As these patients are necessarily frail (hence the reluctance of the surgeon to operate), they often fall victims to intercurrent complaints. But for these it would seem that their existence can be indefinitely prolonged as far as the breast trouble is concerned. It is only natural that X-ray treatment should be reserved for the most unpromising cases, and I would be loath to advise a patient to refuse operation where the surgeon deemed it advisable. This fact makes still more evident the powerfully deterrent action which the rays manifest, for the majority of these people kept under careful X-ray administration will continue to live in comfort, and, if desirable, in ignorance of the nature of the disease.

Such cases do best when receiving a dose on twenty consecutive days, or not less often than three times weekly, and this course of treatment repeated every three months.

Schirrus in younger patients is seldom attacked by X-rays, owing to the greater hope of successful operation. Recurrences after operation very often come to the radiographer, and these cases, although locally much benefited, usually develop secondary deposits in deep organs. I do not mean to infer that the X-rays encourage dissemination, but the usual termination of

* GAZETTE, vol. xix., No. 435, 1905.

these recurrences is due to the involvement of deeper organs, and the X-rays merely arrest the local disease.

I have always been of opinion that the early and vigorous treatment of a primary schirrus with the X-rays would hold out considerable hope of entirely checking the progress and probably eliminating the disease, but as an experiment it would be wholly unjustifiable except in the case of a patient who could not be persuaded to undergo the ordeal of operation.

Whether or no, previous to an operation, a course of X-ray treatment would be beneficial is a matter worth considering. Again, one would hesitate to advise the postponement for experimental purposes, especially as years of statistics alone could prove the advisability of the proceeding. However, a legitimate, and in my experience a most valuable, adjunct to surgery is the application of the X-rays after surgical treatment, and results would tend to prove (and I speak of at least ten years' experience in these instances) that the success of the surgical proceedure is definitely enhanced by this post-operative method.

It is only reasonable to expect that an agent which will attack and deter a growth in the height of its activity will exert its influence with more force upon a few small and devitalised fragments left after operative interference. In this connection I would advocate a thorough X-ray exposure in the open wound at the time of operation. This would only necessitate a few minutes longer anæsthesia.

In making these remarks I have been careful to under-estimate rather than over-estimate the value of the rays in malignant disease, and to speak merely of what I have seen.

Preparations Received.

WE have received a sample of "Digalen," as prepared by the Hoffmann La Roche Chemical Works, Ltd. This is a sterile solution of amorphous digitoxin, 9 c.c. containing 0·3 mg. of amorphous digitoxin. Experiment has shown that it does not tend to produce the gastric disturbances which are apt to follow the administration of digitalis; while it has the further advantage of allowing of exact dosage. It is supplied in bottles of 15 c.c. (2s. 6d.), 9 ampoules of 1 c.c. in boxes of 6 (1s. 10d.), or 12 (3s.), and its dose is 8 to 15 minims three times a day. It may be given by the mouth, by intramuscular or intravenous injection, or by the rectum.

WE have also received samples of "Thiocol," a guaiacol preparation, manufactured by the same firm, for use in tuberculosis and other lung affections.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

National Insurance Bill.

DEAR SIR,—I have no desire to make the GAZETTE a medium for a political argument, but I trust that you will allow me to reply to Dr. Fremantle's reminder that "this measure is regarded by socialists as anti-socialistic, inasmuch as only one-fifth of the payments are made from the Exchequer." He omits to mention that, in addition to the 2d. from the Exchequer, there is to be 3d. from the employer, so that the man who is supposed to benefit is to pay less than one half of the premium. I do not suppose for one moment that the socialists would be satisfied unless the Bill provided that they should pay nothing, but my objection was that the medical profession should be bled in far greater proportion than any other part of the community. It is, however, especially pleasing to see signs of unanimity amongst the profession, and it is now apparent that unless the just and very reasonable demands of the registered practitioners are embodied in the Bill in black and white *before* it becomes law, for we do not intend to be bluffed, the wild schemes of this darling of the gods will be reduced to absurdity.—Faithfully yours,

G. McGREGOR.

June 27th, 1911.

DEAR SIR,—It seems, indeed, a pity that our profession should, in its dealings with the Insurance Bill proposals, devote itself so entirely to its own points of view, and that a body such as ours, which has (and justly so, we hope) earned a high reputation for magnanimity and unselfishness, should on such an important occasion be found wanting in these attributes. Already two or three numbers of the GAZETTE and many other medical publications have contained communications dealing, for the most part, only with the proposals in so far as they affect the medical profession; and already, alas, the Press is beginning to take unfavourable notice of this somewhat self-centred attitude. Now, although it is perfectly just and reasonable that we should most earnestly consider our own case, it is not right that we should consider our own case only. As in medical practice we look first to the welfare of the patient, so in medical policy we ought surely to give adequate consideration to the condition of the community, which, in the present instance at any rate, is very much in the position of the patient.

Let it not be thought from the foregoing that I am personally in any way opposed to the spirit of antagonism which has been kindled in our ranks. On the contrary, I would add fuel to the fire; for I maintain that the Bill from the point of view of the public is still more reprehensible than from the point of view of the medical man, and that we should be the first to recognise this.

Already it has been proclaimed and accepted among us that the hope of the future lies rather in the direction of preventive medicine than in the sphere of conservative curative measures. Are we then going to give support of any kind to a measure which is, in more senses than one, essentially palliative? That palliative measures should even have been suggested is sufficient proof of the insufficiency of scientific knowledge on the part of their promulgators.

Apart altogether from the outstanding facts, that the proposals embodied in the Bill are obnoxiously bureaucratic, that they are certainly anti-social in so far as they must tend to diminish wages and to increase unemployment, that they are entirely short-sighted and mistaken in that they strike at the results of social mal-organization instead of at its causes, and that they seem likely, if carried into effect, to reduce the noblest of professions to the status of a sweated industry—all of which are sufficiently damning in themselves—it must surely be obvious to medical minds that the Bill, in so far as it is mainly concerned with treatment (prevention being merely a minor consideration) is extremely ill-considered and inadequate.

One must admit that the idea of a National Health Bill, especially when backed by so hypnotic an influence as that exerted by the Chancellor of the Exchequer, is certainly alluring. Let it, however, be the duty of our profession to point out to the community that experts (so-called) in legislation are not necessarily experts in the sphere of health administration.

R.

Appointments.

SIR,—Can there be any reason for the procrastination of the authorities in electing candidates for junior house appointments? The obstacles—competitive and pecuniary—opposed to a man who wishes to do appointments at Guy's are enough without unnecessary difficulties. An early election would undoubtedly facilitate matters for many, so perhaps this suggestion will receive the consideration of the authorities.—I am, sir, yours etc.,

W. T. CHANING-PEARCE.

Dental News.

ON Wednesday, June 7th, a large party of dental students journeyed to Heston, Hounslow, to visit the laboratories of Messrs. Parke, Davis & Co. An excellent lantern lecture was given, after which parties were conducted round the grounds. The numerous labour-saving devices, which occupied prominent positions, were especially interesting, and attracted a great deal of attention. The visit ended with tea and music, Mr. Shore thanking Messrs. Parke, Davis on behalf of the students who had so enjoyed their hospitality.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Contributions to Abdominal Surgery. By the late Harold Barnard. Edited by Jas. Sherren. (Arnold, 1910.)

This volume comprises five papers which have been put together by a small committee of four colleagues and friends, and edited by one of their number as a significant memorial of what they and the school in which Barnard learnt and did his life's work have lost by his premature death.

Of the five papers, the first is a long and exhaustive treatise on Intestinal Obstruction in all its aspects. This contains much that had already appeared in Barnard's article on Gall-stone Obstruction in the *Annals of Surgery*, in his lectures on Intestinal Obstruction at the Polyclinic, and in his article on the same subject in Allbutt's System of Medicine, but chapters on Fæcal Obstruction and on Congenital Dilatation of the Colon have been added, and several of the other sections contain new observations and illustrations found among his notes and papers, for Barnard had for some time been collecting material for a comprehensive work on this subject.

The second paper is a lecture on Gastric Surgery delivered at the Polyclinic, and published in the *Clinical Journal* of 1906. The third deals with the Simulation of Acute Peritonitis by Pleuro-pneumonic Diseases, and has previously appeared in the *Lancet*, 1902. The fourth comprises three lectures on Acute Appendicitis delivered at the Polyclinic in 1903, and published elsewhere; and the fifth is his address on the Surgical Aspects of Subphrenic Abscess delivered before the Surgical Section of the Royal Society of Medicine in 1908, and published in the *British Medical Journal* only a few months before his death. This was his last contribution to a subject which he loved so well, and was ever ready to discuss, and with this, as the editor rightly remarks, "his name will ever be associated." It convinced the conservative leaders of Surgery in London that youthful enthusiasm, originality of thought and manipulative skill were in him combined with keen powers of clinical observation and of sifting what-is from what-is-thought-to-be, and that Barnard had taken the place which all his friends felt should be his.

It is difficult to review some of these articles critically owing to the time which has now elapsed since their first appearance, for nothing has in these years moved faster than surgical opinion and practice, and the author himself would be the first laughingly to admit that much that appears here has already been conclusively controverted or improved upon, though it

is surprising how some of his dimly outlined thoughts are now the established practices of surgical art.

The first article opens with the general consideration of intestinal obstruction, where pregnant observations catch one's eye on every page; for instance, "it cannot be too strongly urged that coils of gut are not dead and gangrenous because they are purple or black. The great majority will readily recover when their veins are released. The prevalent notion that black gut is always gangrenous is responsible for many unnecessary enterectomies." Later he points out that sensations can only be localised in the segments of the alimentary canal which are more or less fixed, namely, *the stomach, duodenum, and colon, so that pain from* early obstruction in the small intestines is diffused and referred to the umbilicus. The bugbear of the causation of fæcal vomiting no longer troubles the medical student, but it is interesting to review the experimental evidence on which intestinal antiperistalsis was exploded, even if we must agree with the author that we do not know why bile regurgitates into the stomach. The general and differential diagnosis of obstruction is most carefully dealt with, and clear warning is given of the trap set for the unwary by the prescribing of opium. In the chapter on obstruction by foreign bodies, the question is raised as to whether the careless swallowing of fruit stones should be classed as an accident, "for Nature provided the luscious epicarp in order to induce some animals to swallow the stone and widely distribute the seed suitably manured." The accounts of the recovery of many patients by natural means after swallowing foreign bodies in extraordinary numbers or of extraordinary shape give one to think, and the warning that "nearly all foreign bodies which have passed the pylorus are naturally evacuated sooner or later" should help to prevent much meddlesome surgery. The chapter on Gallstone Intestinal Obstruction is considerably altered from his earlier paper, and, being concise, exhaustive, and clinically accurate, will no doubt be universally regarded as one of the classics on this question. Barnard's personal experience was unusually wide, for of the fourteen cases admitted in thirteen years into the London Hospital, Barnard operated on six, of which three recovered. His clinical word-picture of a patient suffering from this condition is delightfully lucid—"an old fat woman with acute obstruction of the small intestine, yet of a partial character. The violence of the onset and of the vomiting, but the absence of total constipation. The shifting of the pain from the epigastrium to the umbilicus, and the remission of the vomiting on or about the third day." It is in connection with the characteristic nature of the vomiting that some of his most incisive observations are made, for he repeats his original opinions of his early paper that the apparently misleading remission of vomiting about the third day is by itself diagnostic of the passage of an obstructing body from the region of the stomach into the easily-traversed moveable jejunum, and that the recurrence of vomiting indicates impaction lower down. The description of Intestinal Growths is very thorough, and every student of surgery cannot fail to be enlightened and interested by the discussion on the significance and fallacies of ballooning of the rectum in carcinoma of the intestine, even if the author's theory of its causation is not convincing. Barnard came across only one case of stricture of the intestine after strangulated hernia in the London Hospital in thirteen years, which, considering the tightness with which bowel is sometimes gripped at the crural ring, shows an unexpected tendency to recovery of its walls. Sixty-seven cases of obstruction by bands show a mortality of 54 per cent. This form, it is pointed out, may complicate the issue during convalescence from many abdominal diseases or after abdominal operations, though in the latter connection we suspect that it is frequently an euphemism for peritonitis. The usual multiplicity of bands is laid stress upon, and also that the actual obstructing one may be missed if "the unreliable method of following dilated gut downward is not avoided."

Barnard regards the explanation of intussusception as simple, when viewed in the light of Bayliss and Starling's work on intestinal peristalsis, for "if a coil is so displaced as to touch the mucosa below, this is stimulated and grasps the entering coil, attempting to pass it on." While it is true that in a large percentage of intussusceptions, conditions such as growths, polypi, etc., exist, which fulfil the required conditions, the theory is not at all convincing in determining the ætiological factors of intussusception occurring in fat healthy infants. Quoting 187 consecutive cases at the London Hospital, he shows that 72 per cent. were under one year old, and this series also upholds the common opinion of its greater incidence in males. In detailing the symptoms, his clinical picture is characteristically vivid, and in differentiating this condition from acute colitis in infants, stress is laid upon the complete intestinal obstruction in intussusception with absence of bile from the motions.

All who have had to treat these cases will agree that "the question of reducibility is of paramount importance," and after pointing out how quickly irreducibility sets in, the author emphasises the absolute fatality of resections in infants under a year—a statement of which the truth is increased rather than diminished by the few exceptions recorded since Barnard's article was written.

There is no condition to which operation on a mistaken diagnosis can do more harm than acute intrathoracic disease, and every young surgeon should learn by heart the paper on "the Simulation of Acute Peritonitis by Pleuro-pneumonic Diseases." Though these observations are not original, as they are to be found in Andral's Text-book of 1836, and Hilton Fagge

wrote about 1880 that pain in pleurisy might be referred to the umbilicus, so that peritonitis is suspected; yet it is valuable as a clinical record of six cases at the London Hospital presenting the usual difficulties of diagnosis.

It is difficult to deal critically with the three lectures on Acute Appendicitis, for a period of more than eight years has elapsed since their delivery, and during this period opinions relative to the desirability of operation and other details of treatment have oscillated more in connection with this than with any other common surgical disorder. Yet many of his practical observations are as worthy of attention now as when they were made, as, for instance, his insistence as a surgical axiom that a rectal examination should be a routine proceeding in every case of appendix abscess. Two excellent freehand diagrams help to impress the anatomical boundaries of appendicular pelvic abscesses upon the mind, and the author gives a very clear account of the symptoms and physical signs upon which the diagnosis of this most insidious complication depends.

In discussing the ætiology of peritonitis, after drawing attention to anatomical variations in the position of the appendix and their relative influence, he dilates upon the varying vulnerability of different peritonea to organisms, and remarks, "one has often noticed in hospital life how the big athlete appears to be susceptible to every form of bacterial invasion." In the matter of treatment of appendicular peritonitis he gives much evidence in favour of his main lines of defence, viz., drainage without irrigation; free purgation with calomel, which he prefers because of its ease of administration and because of its being the most powerful intestinal antiseptic; and large subcutaneous saline infusions.

The last chapter is formed by his latest paper on Subphrenic Abscess, and no better monument to Barnard's memory could be provided, for it is and will probably long remain the standard article on the subject. Frequent use has already been made by other writers of Barnard's observations and classification so that much of the paper is already widely known, even by those who have not read the original. Particular recognition is merited by his anatomical subdivision of its different forms and by his clear account of the symptoms and physical signs to which they give rise, and without doubt the writer is only one of a large number who have saved cases and reaped kudos from the employment of Barnard's logical and systematical exploration of the subphrenic space for pus.

To one who had the pleasure of being his friend and the frequent intellectual delight of discussing surgical puzzles with him—whether at the corner of Harley Street or in seclusion, the same free gesture and forcible terse language was employed by him—the chief pleasure, yet mixed with keen regrets, is the appreciative biography by Dr. Bashford. It truthfully brings out his gay spirit, boyish enthusiasm, and youthful exuberance; it tells of "many obstacles, a false start upon a commercial career, a lack of financial means, certain always abiding mannerisms, and, added to a keen scientific curiosity, a combative spirit which enjoyed being on the side of the minority." With these advantages and drawbacks, Barnard came to the London after education at a suburban private school, a confined home up-bringing and some four years' work as a City clerk. One can imagine how he would be "barred" because he was too obtrusive and combative to be ignored or to allow his want of certain "indefinable qualities" to remain unnoticed. Yet in recent years "his generation grown older in judgment, and perceiving at last the real man, discovered also the absolute importance of these matters to have dwindled a little." Academically his path was smooth, but unkind criticism of his superficial defects would cause him hours of bitterness, for like so many who hit hard in controversy, Barnard was keenly sensitive on small questions of taste in controversial tactics. Appointed Assistant Surgeon to the London Hospital in 1900, where it is no secret that but for disagreements of a personal nature he would have secured an earlier vacancy, he made for himself in eight years a reputation in abdominal surgery which few men of his time or years have equalled; we are told by those best able to judge that as an operator he was brilliant, while the papers enclosed in this volume clearly show that he had a marked degree of that clinical insight which is the bedrock of sound diagnosis. As a teacher, Barnard's popularity entirely overcame all adverse opinions of him as a student, and it is undoubtedly in this capacity that his genius shone out most clearly, for here he was at his best; his lectures were crowded and he enjoyed them no less than the audience. "Talking like a schoolboy on a holiday, it was, perhaps, the schoolboy in his listeners that he succeeded most in arousing," and in the last year the slow fight of certain ending was never allowed to obscure this buoyant, combative, enthusiastic boyishness. May we all be made strong enough to meet death in the same way. C. H. F.

Medical Revolution. By Sydney W. Macilwaine. (P. S. King & Son.) 2s. 6d.

The medical profession produces few revolutionaries, and it is therefore especially attractive and refreshing to meet the honest criticisms and suggestions contained in Mr. Macilwaine's timely "Plea for the National Preservation of Health based upon the Natural Interpretation of Disease." We venture to predict that this excellent little book will not have the entire approval of the physician or the surgeon. The former is accused of having substituted morbid anatomy, under the name of "scientific pathology," for the science of medicine, while the latter is urged to return

to his former subordinate position, because "the attempt to practice surgery that is not founded on, or subordinated to, medicine is disastrous in its results." The hospitals receive little more mercy at the hands of the reformer than the specialists who work in them. Their work, as at present carried out, is shown to be ineffectual in securing prevention, the great aim of medicine, because at the hospitals effects are alleviated, while causes are neither sought after nor removed.

In short, the revolution so ably advocated by Mr. Macilwaine would substitute a knowledge of causation, or true diagnosis, for the pathology of symptoms, or illusory diagnosis, which now prevails. We commend this book most heartily to those to whom it is dedicated, namely, "To the intelligent, and puzzled, layman, to Medical Officers of Health and General Practitioners, to Medical Students to whom belong the future of our profession;" and, indeed, to all those who feel that the charity which aims at the abolition of disease should begin in the homes of the people and not in the Out-Patient Departments of our hospitals.

We would congratulate Mr. Macilwaine upon his book, which we feel sure will do a great deal of good, and we trust that this will not be the last production of his pen which we may have the pleasure of reviewing.

A Treatise on Treatment. By J. L. Chundra, L.S., Calcutta University. (Calcutta: 5, Gopee Kristo Paul's Lane.) Rs. 9 annas 6.

The author's object in this work is to give as concisely as possible the various methods of medical treatment; he includes all those that are well-recognised, and gives, in addition, several of the more recent ones.

The arrangement is good. After outlining the general treatment of each disease, the author describes methods of dealing with special symptoms. The result is, on the whole, satisfactory, but here and there important points receive rather inadequate attention. For instance, the indications for surgical interference in cases of appendicitis are dismissed in three lines, while several pages are devoted to the medical treatment of this disease. The book is marred in places by some rather remarkable English; the following sentence, for example, defies analysis—"Don't give tinned meat in typhoid fever . . . on several occasions the writer has found tinned meat in such filthy decomposed condition that it would have done a world of harm rather than the patient be without it."

A Manual of Pathology and Morbid Anatomy. By T. H. Green. Eleventh edition, revised and enlarged by W. Cecil Bosanquet. (Ballière, Tindall & Cox.) 18s.

Any extended notice of so popular a favourite as Dr. Green's Manual of Pathology would be superfluous, and it is only necessary to give a hearty welcome to the eleventh edition. One of the most noticeable features of the new edition is the careful revision of the section dealing with Parasitology. The description of the bacillus tuberculosis has been removed from its old position at the head of the section on tuberculosis, and now takes its place with the other vegetable parasites; and the results of the great advances made in this branch of pathology in recent years are briefly noticed. As a result, we have a clear and concise account of this most important part of the subject. Yet we are by no means sure that we welcome the gradually increasing prominence given to this section. The more excellent the treatment of the subject-matter, the greater is the temptation to the student to forego the study of the text-book dealing primarily with bacteriology; and no account of bacteriology within the limits necessary in a text-book of this scope can alone suffice, however perfect it may be in other respects.

A short chapter has been added on the Diseases of the Skin, and the whole book has been brought up to date in a thorough and judicial manner; the paragraphs dealing with that awe-inspiring process known as fixation of complement should help to dispel the mystery that so often shrouds the Wassermann reaction in the eyes of the student. No notice of this manual would be complete without some reference to the section on the pathology of the nervous system. Originally the work of Dr. Mott, this section has undergone but little change, and it is still, as it always has been, one of the chief attractions of the book. Like all Dr. Mott's pictures, the illustrations here have the rare merit of being true to life and descriptive of the lesions they represent. Force of circumstance has necessitated a change of publisher, and it is probably only sentiment that raises a lingering regret at the passing of the old familiar form. Dr. Bosanquet's new edition has succeeded in adding to a reputation already firmly established, and we congratulate the new publishers on having secured for their University Series a volume which does so much honour to their roll.

Carbonic Acid Snow as a Therapeutic Agent in the Treatment of Diseases of the Skin. By R. Cranston Low, C.P. (Wm. Green & Sons). 5/-.

Refrigeration as a form of treatment of nævi and other conditions, has recently become so popular as to justify the publication of a monograph on it, and Dr. Cranston Low has written a book which does justice to the subject. The description of the different methods of making the snow are clear, and the illustrations throughout are good.

In the clinical part the author is careful to mention the diseases in which he has found the treatment without effect as well as those in which he has found it useful. We are glad to see that he disagrees with those who

state the refrigeration is painless, but we are surprised that he says it is not easy to freeze the scalp.

We note, too, that he has omitted to mention the tendency that exists in the nævi of children to recur in this as in other forms of treatment. He has found carbonic acid snow useful in nævus vasculosus and pigmentosus, verruca, lupus erythematosus and rodent ulcer. Dr. Low has evidently had considerable experience in its use, and his book may be safely recommended.

Sport.

Guy's Hospital Swimming Club.

THE Annual Entertainment of the Guy's Hospital Swimming Club was held at the Southwark Baths on Wednesday, June 28th, and proved a remarkably successful and enjoyable evening.

A large and enthusiastic gathering of spectators was present, including:—The President of the Club, Sir Alfred Fripp, Dr. and Mrs. Hale White, Dr. and Mrs. Pitt, Lady Perry, Mr. and Mrs. Steward, Mr. and Mrs. Fagge, Mr. and Mrs. Turner, Dr. and Mrs. French, Dr. and Mrs. Cameron, Mr. and Mrs. Ormond. Dr. and Mrs. Eyre, Mr. and Mrs. Lewin-Payne, Dr. and Mrs. King Brown, Dr. and Mrs. Stevens, Mr. and Mrs. Layton, Mr. and Mrs. Davies-Colley, The Matron, Messrs. Thompson, Hopson and Townrow, Dr. Morgan Dockrell and Dr. Mann.

During the evening some extremely close finishes were seen, and the inter-hospital events, which it is to be hoped will be continued, aroused great interest. The cork competition proved very amusing, one of the spectators remarking that some of the competitors would perhaps be more at home with the bottles than they were with the corks. An excellent display of diving by Messrs. Johansson (World's Champion), Hughes, Cave, and Robinson was much appreciated, and the thanks of all are due to these gentlemen for so kindly coming down.

An orchestra, consisting of the Misses Gardiner, Miss O. Hunt, and Messrs. H. Gardiner, and G. H. Hunt, played delightfully during the evening. The secretaries of the club, Messrs. H. N. Eccles and M. Pern are heartily to be congratulated upon making the entertainment the great success that it undoubtedly was. The evening concluded with the distribution of prizes, Mrs. Seymour Price having kindly undertaken this task.

The following is a list of the results:—

SIXTY-SIX YARDS SCRATCH (Prize presented by Sir Alfred Fripp).—1, J. Yorke Moore (44⅕ sec.); 2, M. Pern; 3, H. Millett.

SIXTY-SIX YARDS INTER-HOSPITAL CHAMPIONSHIP (Prize presented by Dr. Morgan Dockrell).—1, M. Littlewood (St. Thomas's) (44⅘ sec.); 2, P. L. Foote (London).

NURSES' RACE (66 yards Handicap) (Prize presented by the "Guy's Hospital Gazette").—1, Nurse Marshall (50 secs. start); 2, Nurse McDonald (scratch). Nurse McDonald swam extremely well, but her handicap was rather an excessive one.

NEAT DIVING (Prize presented by Mrs. Turner).—1, E. G. Schlesinger, 87½; M. Schneider, 83; 3, C. Reckitt, 80.

100 YARDS INTER-HOSPITAL CHAMPIONSHIP (Prize presented by Dr. Morgan Dockrell).—1, W. Morris (London) (67⅘ sec.); 2, J. Yorke Moore (Guy's). Won by a foot.

LONG PLUNGE (Prize presented by Dr. Eyre).—1, J. Pryce Davies, 53ft 2in; 2, C. E. Reckitt, 46ft 4in.

SIXTY-SIX YARDS HANDICAP (Prize presented by Mrs. Price).—1, A. Buck (5 secs. start); 2, A. Wills (9 secs. start); 3, F. B. Stradling (3 secs. start).

CORK COMPETITION (Prize presented by W. M. Mollison, Esq.).—1, F. B. Stradling, 13 corks.

233 YARDS INTER-HOSPITAL CHAMPIONSHIP (Prize presented by Dr. Morgan Dockrell).—1, M. Pern (Guy's), 3 min. 31 sec.; 2, P. C. Foote (London); 3, T. Bostock (London).

DUCKS AND DRAKE CONTEST (Prize presented by C. H. Fagge, Esq.).—1, T. B. Layton. A very strenuous and popular win.

SIXTY-SIX YARDS BREAST STROKE (Prize presented by J. Lewin-Payne, Esq.).—1, J. H. Griffin (55 sec.); 2, A. Moberley; 3, E. F. Llarena.

OBSTACLE RACE (Prize presented by Mrs. Steward).—1, J. Yorke Moore; 2, E. F. Llarena.

WATER POLO MATCH—Guy's v. Mr. H. N. Eccles' Team.—*Guy's*: W. J. D. Smyth, A. Wills, A. V. Moberley, M. Pern, F. Stradling, J. Yorke Moore, C. Glover. *H. N. Eccles' Team*: H. N. Eccles, T. B. Layton, T. Bostock, P. L. Foote, M. Littlewood, J. Lattey, W. Morris. Result: three goals each after a very fast and exciting match.

Inter-Hospital Sports.

THE Inter-Hospital Sports were held at the Stamford Bridge enclosure on June 27th.

St. Thomas's and London tied for the Challenge Shield with 46 points each, St. Bart.'s, 39, being third, and Guy's, 25, fourth.

The result, as regards the Shield, was disappointing to Guy's men, who had hoped to have seen their team uccessful. The men who performed, however, are to be congratulated on obtaining five seconds, the results for this year being distinctly above the average.

J. G. Skeet, St. Thomas's, accomplished a fine performance in the ¼-mile, doing the distance in 51⅕ sec., and so creating a new record.

W. G. Tucker, Guy's, also beat the standing record for the hammer, throwing 110ft. 8in.; he, however, had to take second place to H. J. Bower, St. Bart.'s, who threw 131ft. 3½in.

H. Parry Price, Guy's, also performed well, getting second in both one mile and three miles, only being beaten by such well-known and experienced runners as H. P. Dawson and N. F. Hallowes, both of St. Thomas's.

W. Evans, although running well in 100 and 220 yards, was unable to repeat his former successes, and W. A. Stewart, London, who has been performing at all the large open meetings, and who is the Scottish Champion for 100 yards, won both these events in fine style.

A. W. A. Davies, Guy's, ran second to E. E. Paget-Tomlinson, London, in the hurdles, and with more experience should improve.

The meeting was unique in that for the first time in the history of the United Hospital Sports the Tug-of-War was allowed to count points for the Shield. It is interesting to note that upon this event hung the issue as to whether London should have the right to hold the Shield conjointly with St. Thomas's for the year. Guy's won, and London beating St. Thomas's by two pulls obtained the three necessary points.

Guy's have done much to promote the Tug-of-War, and it is quite time the event counted for the Shield. Writing of the team one cannot help thinking of one man who first seriously took it up, and eventually obtained, through constant practice, the team which has pulled so well in the Inter-Hospital Sports for the past five years. It seems hardly necessary to say we refer to R. G. Oram, and we offer to him and the team our heartiest congratulations. The team consisted of the following:—

W. G. Tucker, J. Watkin, W. S. Stranack, A. B. Danby, A. V. Moberly, M. Pern, L. Horsley, H. J. Hoby.

Lawn Tennis.

GUY'S 2ND VI. v. ROYAL DENTAL HOSPITAL 1ST VI.

FINAL: INTER-HOSPITAL JUNIOR CUP.

This match was played at Honor Oak Park on Friday, June 30th, and resulted in a great win for the Hospital 2nd VI. by 8 matches to 3, for the fourth year in succession. Score:—

SINGLES.

G. W. King beat W. R. Matthews, 6–4, 8–6.
H. L. S. Griffiths lost to F. H. Jackson, 3–6, 4–6.
H. S. Groves beat R. W. List, 2–6, 7–5, 6–4.
N. Garrard beat F. W. Lewis, 6–3, 6–2.
O. Morgan beat C. C. Blundell, 6–4, 6–2.
R. Farrington beat V. L. S. Beckett, 6–1, 4–6, 6–4.

DOUBLES.

Groves and Griffiths lost to List and Jackson, 7–5, 3–6, 4–6; beat Matthews and Lewis, 7–5, 8–6.

King and Morgan lost to Matthews and Lewis, 8–10, 6–8; beat List and Jackson, 10–8, 6–4.

Garrard and Farrington beat Blundell and Beckett, 13–15, 6–2, 6–2.

Water Polo.

Inter-Hospital Water Polo Cup.

GUY'S v. LONDON.—1ST ROUND.

This was a well-contested game, and resulted in a win for Guy's by 4 goals to 2. Goals were scored by York Moore (2), Stradling (1), and Glover (1). Team:—

W. F. Smyth (goal); A. Wills, H. G. Rice (backs); M. Pern (half-back); F. B. Stradling, J. York Moore, C. Glover (forwards).

GUY'S v. ST. THOMAS'S.—SEMI-FINAL.

Only six of the latter team turned up. Result, a walk over. Team:—

W. F. Smyth (goal); A. Wills, A. Buck (backs); M. Pern (half-back); F. B. Stradling, J. York Moore, C. Glover (forwards).

GUY'S v. BART.'S.—FINAL.

Bart.'s scratched. Guy's therefore won the Cup again for the fifth year in succession. The team is to be congratulated on its keenness and excellent work throughout the season.

Birth.

CROFTS.—On June 9th, at 9, High Street, Windsor, the wife of A. Douglas Crofts, M.R.C.S., L.R.C.P., L.D.S., of a son.

Deaths.

BRYANT.—On June 16th, at 19, FitzGeorge Avenue, Kensington, W., Adelaide Louisa, the beloved wife of Thomas Bryant, F.R.C.S., Consulting Surgeon to Guy's Hospital.

OSBORN, Ashby Greenough, M.R.C.S., L.R.C.P., Honorary Consulting Medical Officer to the Dover Hospital, and late Honorary Surgeon to the Dover Orphan Home for Girls, at Dover, aged 82.

WILKS.—On June 4th, at The Retreat, De Vaux Place, Salisbury, Herbert Lorraine Earle Wilks, M.R.C.S., L.R.C.P., formerly of Grove House, Salisbury, aged 43.

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE.

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Passim.

IN the Coronation list of honours we overlooked the name of Arnold William Reinold, Esq., F.R.S., among the list of new C.B.'s. Professor Reinold is well known to Guy's men as Dr. Fison's popular predecessor in the post of Lecturer on Physics to the Hospital. We would offer him our somewhat belated, but none the less sincere congratulations upon the honour he has received.

AN amendment to the National Insurance Bill, of the greatest possible interest to Hospital Nurses, was accepted by the Chancellor on Tuesday. The amendment was to omit that subsection to Clause 8, which provides that people in receipt of board and lodging from their employer shall not be entitled to sickness benefits. We know that nurses, as a whole, feel strongly against compulsory insurance for themselves at all. Considering that, under the original terms of the Bill, they were precluded from deriving any benefits at all, this is not to be wondered at. Although getting their medical attendance free under any circumstances, it would appear that under the amended Bill it will be worth their while to insure, in order to obtain the other benefits to which they now become entitled. We shall be interested to hear the opinions of nurses on the Bill as it affects them under its amended terms.

IN our Correspondence Columns will be found a letter calling attention to the lack of proper directions at the Front Entrance as to where the Surgery is. We quite agree with our correspondent that there is great need for such direction. The matter is being considered by the authorities, and we believe will shortly be rectified.

STANDING ORDERS are, as a rule, regarded with but scant attention. The revised standing orders for Out-patient Officers, however, taking, as they do, a large share in that reorganisation of the Out-patient Department which has been proceeding so rapidly of late, deserve the closest and most critical attention. The following clauses contain the chief alterations :—

1. Both pairs of Out-patient Officers shall attend daily, except on Sundays, in the hospital. One pair shall be in the Front Surgery on Mondays, Wednesdays and Fridays, and in the Back Surgery and Medical Out-patient Department on Tuesdays, Thursdays, and Saturdays. The other shall be in the Front Surgery on Tuesdays, Thursdays and Saturdays, and in the Back Surgery and Medical Out-patient Department on Mondays, Wednesdays and Fridays.

3. In the Surgery one Out-patient Officer shall, with the assistance of the Surgery Dressers, see,

and when necessary treat, accident cases which are not severe enough to require admission to the hospital. The other officer in the Surgery shall himself treat medical casualties, but, when more than one attendance is required, children under five years of age shall be provided with a special card, to attend the next week-day in the Out-patient Department, and others with a Surgery card for further attendance in the Out-patient Department on the next day that an Assistant Physician sits. The Dressers in the Surgery may not, on their own responsibility, see, treat, and send away either surgical or medical cases.

6. The Surgical Officer on duty in the Front Surgery shall attend in the Back Surgery at 9.30 on the following morning . . . until 12 o'clock. . . . . When his morning's work in the Back Surgery is finished he shall attend in the Medical Out-patient Department at 1.15 p.m., where he will help his medical colleague, seeing particularly such cases as present themselves in the department not having previously attended the Surgery.

7. The Medical Out-patient Officer in the Surgery shall attend in the Medical Out-patient Department on the morning of the following day, beginning work at 10 o'clock, to see the babies and the other patients whom he has seen on the previous day in the Surgery. He will continue this work in the afternoon, when he will be joined by his colleague.

WE have quoted these regulations at length because we feel them to be of great importance, and because their efficient carrying out, if they are to be carried out, depends upon a proper understanding of what they imply. There is always a tendency to decry new regulations of any sort, and the only criticism of value is one given after they have had a fair trial in practice. Nevertheless there are certain points to which we feel attention may be profitably drawn before practice has set a precedent, which it is always difficult to alter. In the first place, one doubts very much whether daily work of seven to nine hours for six days a week in the surroundings and atmosphere of the Out-patient Department is conducive either to good health, good judgment, or keenness. The post of Out-patient Officer carries with it a great deal of responsibility, and calls for the keenest observation and judgment, and one wonders whether the additional hours which the new regulations imply will be compatible with the efficiency that is so necessary in all Out-patient work.

AGAIN, although it would seem, at first sight, desirable that the man who first sees a case should continue to see and treat it in Out-patients, yet it has always seemed an additional safeguard that at present two people see the same case, and, at any rate, it promotes a keenness of diagnosis which cannot but be to the advantage both of the patient and of the Hospital.

PERHAPS the most important change of all is that, in future, all cases attending in the Surgery are to be seen by the Out-patient Officer. It is undoubtedly wrong that any case of any kind coming to a large London hospital should ever be sent away without seeing a qualified man. While fully admitting this, it is impossible not to shed a tear over the passing of one of the most cherished traditions of Guy's. There is no doubt that the new system will rob the appointment of dresser of at least half its value, because it is against human nature to come to the same definite conclusions on a case which is going to be seen by some one else, who will take full responsibility, as on a case which one is also going to diagnose, treat, and send away. Time and space will most certainly prevent both Out-patient officer and dresser examining carefully all medical cases, and the line of thought amongst old Guy's men, beginning, "I remember when I was a dresser," which we feel sure has led to many a correct diagnosis, will of necessity die. That it must die seems to be the unanimous opinion of those competent to judge, and, while not seeking to prolong its life, we cannot but lament the death of what has undoubtedly been a great factor in turning out the eminently practical men of whom Guy's has always been so justly proud.

NOTHING is so utterly useless as purely destructive criticism, and therefore having criticised, we feel compelled to formulate an

alternative scheme. We would suggest the appointment of five Out-patient Officers. We print below a rota by which the work could be apportioned, and it will be seen that one day's holiday a week is ensured for each Out-patient Officer, while three men are on duty in the Surgery on Mondays, which is by far the busiest day of the week. A further advantage of this scheme is that it ensures competition amongst the Out-patient Officers for House Appointments, and should therefore serve as an additional stimulus to efficiency.

If A, B, C, D and E represent the five Out-patient Officers, the following table shows the suggested duties for each man for one week:—

	Mon.	Tu.	Wed.	Th.	Fri.	Sat.
Front Surgery—	A, B, C	D, E	B, C	E, A	C, D	A, B
Back Surgery—	E	C	A	D	B	E
Out-patient Depart.—						
Morning—	D	B	E	C	A	D
Afternoon—	D, E	B, C	A, E	C, D	A, B	D, E
Holiday—	—	A	D	B	E	C

Each week each Out-patient Officer would move on one letter, A becoming B, B becoming C, &c. This would ensure a fair distribution of work, and keep the main points of the scheme as at present in the regulations.

The disadvantage of this plan is its apparent complexity, but this will be seen, on examination, to be more apparent than real.

WHILE engaged in remodelling the Out-patient system, there is one institution which the authorities have maintained, and for which it is difficult to find the slightest justification. We refer to the system by which Assistant Surgeons' dressers select the cases to be seen by the Assistant Physician. Knowing mostly very little of medicine, they have, as a rule, only that notorious straw, a Surgery diagnosis to cling to, the result is that the Physician sees numbers of uninteresting cases, while good cases, from a teaching point of view, are passed over. We would suggest that the Out-patient Officer should send in suitable cases to the Physician, which, under the new regulation by which the Out-patient officers see medical Out-patients early, would be quite workable.

THE next demonstration of selected cases in the Genito-Urinary Department will be held on Friday next at 1.15 p.m.

THE Inter-hospital Shooting Championship at Bisley resulted in an unopposed victory for Guy's. Although this is not so satisfactory as a hard fought win, we heartily congratulate the shooting team on adding yet another to the trophies which remain at Guy's this year. The Cricket Team were unfortunately beaten in the final after an excellent game with St. Thomas's. A report of the match appears elsewhere in our columns. We wish the eleven better luck next year, but we cannot help wondering whether a little more keenness in the earlier part of the season might not have made all the difference to the result.

IN the present age of musical comedy and music-hall, a good play is such a rarity as to be worthy of comment, even in what is usually, of necessity, an almost purely professional journal. We have seldom seen a finer series of character sketches, and certainly never such admirable acting as in "Passers-By," at Wyndham's Theatre. The plot of the piece is daringly commonplace and improbable, thereby serving the better to attract attention to the characters and to what they have to say. The tramp, Burns, one of nature's derelicts, is remarkably true to life, and his answer, when work is suggested to him, of "Work, guv'nor; work's for workmen," is a magnificent answer to the "Right to Work" agitators. Again, the joys of motherhood are beautifully told, and the mother's exclamation, "To think that I ever had any ambition other than to be a mother," is to us a particularly pleasant revival of an almost extinct idea. In its intimate contact with the "Passers-By" lies half the fascination of Medicine, and such a presentation of types helps us to appreciate their individual members when we meet them.

THE following occurred in the paper of a successful candidate at a recent Physiology Examination:—

> "The fact that fat can be formed from carbohydrate has now been abundantly proved, for cows, whose food is largely of carbohydrate origin, produce a plentiful supply of milk. The same remark applies to bees."

Ourselves as others see us and others as we see them.

A TRUE perspective, and a just appreciation of relative proportions are notoriously difficult to obtain at close quarters. The equanimity with which men climb mountains, ascend church towers, and travel in foreign lands, ignoring the attendant exertions and discomforts, may be ascribed to a knowledge of this difficulty and a desire to arrive at the requisite view point. The German sees England and remarks just the things which we pass by unnoticed, and *vice versâ*. If he records his impressions, he usually gives prominence to the good he saw, and keeps the bad to himself, or retails it only to a select circle of his friends. This action, while courteous and kindly in itself, has an evil result in that we get a one-sided and ill-proportioned picture. What do we notice most in a strange country? Just those things which are lacking in our own land. And so by our very admiration we openly proclaim our own nakedness. The views of the German in England and the Englishman in Germany are complementary.

Dr. Anton Hengge has recently visited the hospitals of London, and his reflections make interesting reading from the points of view suggested above. While some of his remarks speak very clearly of the failings of German medicine, I hope my observations may also indicate some of its many excellencies.

"The State" in Germany has acquired widespread power and activities to a point which (fortunately or unfortunately, according to the taste of the reader) we, in England, have not yet reached. Medicine, in common with other things, has come into the grip of this tendency to centralization, and all, or nearly all, the large hospitals are owned and managed by either "State" or "City." Dr. Hengge looks with amazement on the "quite enormous" sums of money which are voluntarily subscribed for the upkeep of our London hospitals. The various methods employed for still further increasing the activity of charity, however, call forth something like a rebuke:—

> "It appears to me even more astounding that, for all that, the hospitals yet have the boldness to expose special collecting boxes which appeal for contributions for the comfort of the patients. One finds such collecting boxes in every public place in the neighbourhood of the hospital, and also on the railway stations."

One wonders whether the doctor accidentally kept a certain hospital "for one second," having mistaken a well-known mechanical toy for a weighing machine! Whatever the explanation, he seems very pained about it.

One result of this governmental control of hospitals is that no expense is spared in the construction of buildings or in their equipment from a scientific point of view. The taxpayers groan under the burden, but the hospital staff naturally rejoice at the great advantage which is thus given them. To take one of many examples. The town of Munich has just built for itself a new hospital accommodating 2,000 patients, at a cost of one million pounds sterling. It represents the last word in hospital construction and equipment. The large central kitchen with its shining metal, gas, steam, and electric cooking appliances; its roomy and well lit central hall and side rooms for stores, appealed even to my undomesticated mind. The operating rooms are enormously in advance of ours. They are large, light, and furnished with every possible convenience for expedition and cleanliness in operating. Generally speaking, the surgeon on the continent dresses for his operations as for any other function. He has a small private room where he dons a white short-sleeved collarless shirt, white trousers, rubber overshoes, and mackintosh apron. Over these he wears the regulation sterile overall. In this room is a shower bath where he may refresh himself after the heat of the operating room before again assuming his every day dress. Chief and Assistants alike wear white linen suits when going round the wards. It is not for one moment advanced that these methods have any great influence on the aseptic condition of a theatre, but the gain to personal comfort, cleanliness, and efficiency is obvious.

I noticed in the Privat-Abteilung of this hospital an arrangement by which nurses can be summoned to the different cubicles by a system of lights used as indicators. A memory of the bell ringing in Bright compares unfavourably with the absolute silence of this method.

In nearly every hospital I have been into there are separate anæsthetising rooms. In connection with theatre management Dr. Hengge pays London a compliment, which we at Guy's, alas! cannot lay claim to. He says:—

> "One arrangement, which seems to be a matter of course in England and America, is painfully lacking in most of our hospitals. Over there it is almost out of the question for a patient, immediately after an opera-

tion or anæsthetic, to be brought into the general ward in which are lying patients who have already been operated on for a longer or shorter time, or who have not yet come to operation."

The convenience of such a system is obvious both from the greater quiet and attention that it bestows on the freshly operated, and also from the sparing of convalescent patients from unpleasant sights and sounds. In connection with immediate post-operative treatment I have noticed that many people are using electric light hot-air cradles after any prolonged operation, with a view to maintaining body heat and diminishing shock. Another thing which has struck me is that the trolley as an intermediary between ward and theatre is being done away with. The patient is anæsthetised in bed, and returned straight to it from the operating table. This obviates a great deal of shaking and exposure which on many occasions has been held responsible for an unsatisfactory termination to a critical case.

For sterilisation of the operation area, iodine is used exclusively, preceded in many kliniks by benzine or alcohol. In the Döderlein Klinik, in Munich, this is followed by the application of a rubber solution designed to prevent all possibility of skin infection. The general opinion seems to be that this is not necessary, but it suggests a possible method of protecting the skin from irritation in cases of enterostomy, right-sided colostomy, and so on. Silk is very largely used as a suture material, apparently from a distrust of the sterile character of catgut. Stitch sinuses are not infrequent.

Dr. Hengge comments very favourably on the comfort of English hospitals. The flowers and palms, the piano or harmonium in the wards, the general tone of happiness and good understanding between patients and hospital staff; these things impress him to a marked degree, and he speaks of them at some length. For him they represent the unusual.

The question of nursing methods and arrangements is, as the doctor himself admits, in urgent need of reorganisation in Germany. He has gone deeply into the hours, periods of training, age limits, pension schemes, and ultimate status of English nurses. In connection with this last comes this note:—

> "Many nurses find a provision for life (*versorgung*) in marriage, and the young doctors appear specially preferred."

There would not appear to be much danger of this in Austria and Germany!

With one last quotation from this most interesting paper I must close. It concerns Harley Street and its neighbourhood, and our international relations.

"In the magnificent waiting rooms of these English doctors I made a curious observation. Everywhere I found that well-known book, "An Englishman's Home," and beyond that hardly anything but papers which celebrate the Anglo-French friendship. You must not take it amiss if I touch lightly on the sphere of politics, but over there politics were, so to speak, pressed upon me. I was quite taken by surprise when, for the first time, during the course of an evening party in London, a colleague levelled the question at me, 'When will Germany attack us?' Soon, however, this question was so familiar to me that with every new acquaintance I waited for it as a matter of course, and I never waited in vain. Also in America I frequently met the question, 'When will Germany attack England?' This fact throws a remarkable light on political thought and opinions there."

Is it really as bad as this? I do not feel equal to discussing the question, but it certainly has its interest.

E. L. M. L.

REFERENCES.

Reiseeindrücke aus England und den Vereinigten Staaten von Dr. Anton Hengge.

Nach einem Vortrage in der Münchener gynäkologischen Gesellschaft am 15 Dez. 1910.

Münchener Medizinische Wochenschrift. 30 Mai. 1911.

Change of Address.

F. E. Hutchinson, M.R.C.S., L.R.C.P., from Belgrave, Leicester, to 80, Swanston Street, Melbourne, South Australia.

S. Wilson Charles, L.D.S., from "Graden," Regent's Park Road, Finchley, to "Devonia," Rickmansworth.

E. L. Martyn Lobb, M.S., F.R.C.S., from Guy's Hospital to 62, Wyatt Park Road, Streatham Hill, S.W.

W. J. Ollis, L.D.S., from Guy's Hospital to 8, Buckland Terrace, Plymouth.

Arthur D. Pickett, D.M.D. (Harvard), L.D.S. (Eng.), from 24, Cornfield Road, to 7, Victoria Place, Eastbourne.

A. Zorab, M.B., B.S., from "Blacklands," Lee, to 7, Carlton Crescent, Southampton.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Appointments.

Medical School Appointments.

JULY—SEPTEMBER, 1911.

The following appointments have been made by the House Committee upon the recommendations of the Medical Committee :—

Clinical Assistants.—Messrs. N. S. Carruthers, L. C. D. Irvine, J. M. Jarvie, A. J. McNair, N. Mutch, A. H. Todd.

Clinical Assistants in Medical Out-Patients.—Messrs. A. C. Jepson (Drs. Fawcett and French); J. L. M. Symns (Drs. Beddard and Hertz).

Dressers in the Throat Department.—Messrs. B. Blackwood, W. E. S. Digby, H. P. Warner, H. L. Hopkins, H. L. James, E. G. Schlesinger.

Clerks in the Skin Department.—Messrs. R. A. Fawcus, J. A. Ryle.

Medical Ward Clerks.—Messrs. W. R. Reynell, W. H. Ogilvie, C. Sherris, R. Creasy, A. M. Zamora, D. W. John (Dr. Hale White); G. D. Eccles, F. A. Hampton, V. Atienza, W. L. Webb, F. Collar, A. S. Erulkar (Dr. Pitt); R. A. Fawcus, J. A. Martin, E. G. Martin, T. A. Townsend, R. C. Ozanne, D. V. Pickering, A. C. Clifford (Sir Cooper Perry); J. A. Ryle, N. Garrard, O. G. Morgan, E. M. Mahon, F. B. Bull, H. Sharpe (Dr. Shaw). F. D. Annesley, H. Mather, W. L. Gwyn Davies, A. C. Hancock, A. V. Moberly, D. C. Scott, A. J. E. Smith.

Assistant Physicians' Clerks.—Messrs. D. W. Jones and J. L. Lauder (Monday and Thursday); K. J. T. Keer (Wednesday and Friday).

Aural Surgeon's Dressers.—Messrs. E. W. Blake, E. R. Hart, J. L. M. Symns.

Obstetric Dressers.—Messrs. H. C. Godding, J. L. Stewart, J. M. Joly, E. Lawrence Jones (Mr. Targett); F. C. Hunôt, W. S. George, R. S. Kennedy, C. Warner (Mr. G. B. Smith).

Assistant Surgeons' Dressers.—Messrs. R. H. Lucas, M. Z. Hanafy, F. L. Spalding, R. P. Ninnis, A. J. Drew (Mr. Steward); A. K. Selim, E. D. Scott, Ahmed Abd-el-Al, H. W. Evans, H. Gould (Mr. Fagge); E. S. Taylor, P. H. Berry, C. H. L. Harper, R. C. Matson, J. R. Barrow-Clough (Mr. Rowlands); J. W. Kemp, W. R. Pryn, L. D. Wright, A. M. Henry, F. W. Lawson (Mr. Turner).

Clerks in Electrical Department.—Messrs. T. I. Bennett, G. W. B. Garrett, V. F. Soothill.

Post-mortem Clerks.—Messrs. F. Tooth, E. R. Hart, V. A. Luna, G. D. Eccles, C. M. Ryley, W. M. Langdon (July 1st); R. D. Passey, H. J. Hoby, A. L. Shearwood, M. Scott, S. Wickenden, O. R. L. Wilson (August 16th).

Surgical Ward Clerks.—Messrs. R. O. H. Jones, F. H. Dodd, C. S. Lane Roberts, W. K. McKay, C. Lambrinudi, C. F. Pedley, J. F. Venables, A. H. Taymour, J. York Moore, F. V. Bevan-Brown, T. W. Sheldon, C. G. McClymont, P. R. Chevreau.

Clinical Assistants in Medical Wards.—Messrs. E. C. Peers, H. G. Crawford (Dr. Hale White); L. Milton, G. Covell (Dr. Pitt); T. S. Allen, P. J. Monaghan (Sir C. Perry); S. S. Crosse, P. J. Watkin (Dr. Shaw).

Clinical Assistants in Surgical Wards.—Messrs. C. M. Ryley (Mr. Symonds); B. T. Verver (Mr. Lane); A. L. Gardner (Mr. Dunn).

Ophthalmic Dressers.—Messrs. F. Cook, V. Glendining (Mr. Eason) (August 1st); C. Aldis, V. F. Soothill (Mr. Ormond); F. S. Adams, J. L. M. Symns (Mr. Eason) (September 16th); W. E. S. Digby, E. W. Blake (Mr. Ormond).

Surgeons' Dressers.—Messrs. G. W. King, J. F. G. Richards, H. C. Rook (Mr. Symonds); C. H. G. Pochin, S. Keith, A. G. H. Moore (Mr. Lane); G. S. Miller, A. B. Danby, W. Robinson (Mr. Dunn); G. A. Pratt, G. E. Genge-Andrews, W. C. D. Maile (Sir A. Fripp).

Clerks in Nervous Out-patient Department.—Messrs. G. A. Blake, S. Wickenden, C. Worster-Drought.

Externs.—Messrs. T. B. Heaton, C. A. R. Gatley, W. J. D. Smyth, E. C. Cline (August); W. C. Whitworth, A. Samuel, M. Pern, J. L. D. Lewis (September); J. M. Joly, W. S. George, R. S. Kennedy, H. C. Godding, F. C. Hunôt (October).

Naval.

Fleet-Surgeon W. J. BEARBLOCK, R.N., to the *Royal Oak* on its becoming the parent ship (undated).

Military.

Colonel FITZROY B. MACLEAN, A.M.S., L.R.C.P. (Edin.), and L.M., M.R.C.S. (Eng.), is placed on retired pay, dated 13th June, 1911.

Captain HAROLD SIMSON, R.A.M.C., to be Major, dated 27th April, 1911.

C. A. WOOD, M.B., B.S., was one of the 14 successful candidates for commissions in the Indian Medical Service in January last, and was admitted Lieutenant on probation, with effect from 28th January, 1911.

Territorial Force.

R. A. M. Corps.—For attachment to a unit other than a Medical Unit, PERCY REGINALD BOLUS, to be Lieutenant, 1st June, 1911.

3rd Western General Hospital.—Surgeon-Captain F. G. THOMAS, from 1st Welsh (Howitzer) Brigade, R.F.A., to be Captain, whose services will be available on mobilisation, dated 5th July, 1911.

1st Wessex Field Ambulance.—LANGFORD G. DAVIES, M.B., B.C., to be Lieutenant, dated 13th March, 1911.

Civil.

BARTLETT, C. E., M.R.C.S., L.R.C.P., to be Certifying Surgeon under the Factory and Workshop Act for the Tintern District of County of Monmouth.

WALLIS, B., M.R.C.S., L.R.C.P., to be Certifying Surgeon under the Factory and Workshop Act for the Helston District of Cornwall.

ZORAB, A., M.B., B.S., to be Honorary Surgeon, The Free Eye Hospital, Southampton.

Pass List.

University of London.

M.S. EXAMINATION, JULY, 1911.

BRANCH I.—SURGERY.

E. L. Martyn Lobb, F.R.C.S.

Oxford University.

THE following have been approved in the undermentioned examinations:—

SECOND B.M., PATHOLOGY.

R. A. Fawcus, W. H. Ogilvie, R. C. Ozanne.

First Conjoint Examination.

JULY, 1911.

PART IV.—PRACTICAL PHARMACY.

Billing, E.	Henry, A. M.
Cane, L. C. W.	Laver, C. H.
Cooke, E. J.	Pratt, G. A.
Eccles, H. N.	Reckitt, C. E.

Symns, J. L. M.

Second Conjoint Examination.

ANATOMY AND PHYSIOLOGY.

Chevreau, P. R.	du Vergé, R. P. J. F. L.
Gibb, C. de W.	Sheldon, T. W.
McClymont, C. G.	Taymour, A. H.

Papers by Guy's Men.

The late W. Ilbert Hancock, F.R.C.S., and another. Pathological Examination of the Freshly Fixed Eyes from a case of Amaurotic Family Idiocy.—*Brain*, Part iv., Vol. 33 (No. 132).

Miss Newton's Testimonial.

SINCE the last announcement the following donations have been received:—R. Koettlitz, Esq., £1 1s. 0d., A. Reid, Esq., 10s. 0d.

STATEMENT

SHOWING TOTAL RECEIPTS AND DISBURSEMENTS.

Receipts.

	£	s.	d.
To Subscriptions	587	0	0
„ Interest on Deposit...	3	3	1
	£590	3	1

Disbursements.

	£	s.	d.
By Annuity to produce £41 17s. 11d. per annum	500	0	0
„ Illuminated Letter, Printing and Stationery	11	7	9
„ Postage	10	15	0
	522	2	9
„ Balance handed to Miss Newton ...	68	0	4
	£590	3	1

In accordance with Miss Newton's wish the Committee has applied £500 to the purchase of an Annuity with the Norwich Union Life Insurance Office, and has handed Miss Newton a cheque for the balance of £68 0s. 4d.

Miss Newton attended in the office of the Secretary to the Treasurer on Wednesday, July 12th, and received, at the hands of Sir Cooper Perry, the following illuminated letter:—

"DEAR MISS NEWTON,—On behalf of three hundred and sixty-two Guy's men, representative of the whole body of those by whom you are held in regard and affection, we hereby express our deep sense of loss on the occasion of your retirement from the position, which, since the foundation of the College until now, you have filled with such distinction.

"And, even more, we desire to tender you the true thanks of all those men, and they are many, who have benefited by the capacity, devotion, and loving kindness, shown by you in the interests of the Students belonging to the great hospital you have served so well.

"The memory of these things will create a tradition, inspiring to those who come after.

"In your time of well-earned rest we heartily desire that you may find health and happiness enhanced by pleasant recollections of the past; and, in the belief that we speak for all Guy's Men, who have known you, and whom you know and remember, we sign ourselves for them with lasting good wishes."—Your Friends,

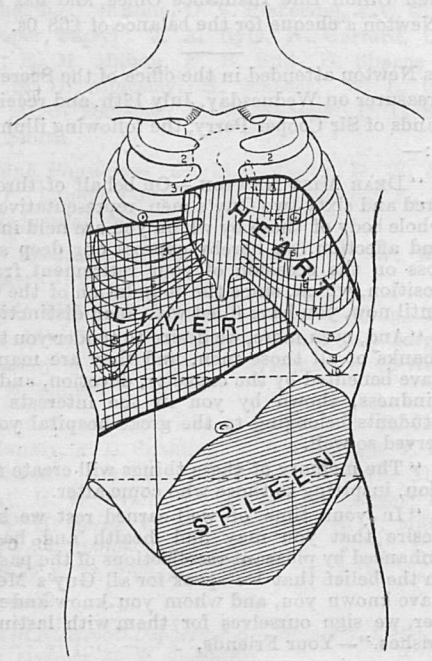
Signed E. C. PERRY. ALFRED D. FRIPP.
L. A. DUNN. JOHN FAWCETT.
C. H. WELLS. LAURISTON E. SHAW.

[Miss Newton's acknowledgment will be found in our Correspondence Column.—Ed. G.H.G.]

A Case of Heart Disease, with Polycythæmia, Cyanosis, and great Enlargement of the Spleen.

CLINICAL LECTURE BY DR. J. FAWCETT.

GENTLEMEN,—The case I want to bring to your notice to-day is that of a girl, 17 years of age, who was admitted into the hospital on April 13th with heart disease. In the family history there is nothing particular to record except that the mother is said to have died, at 45 years of age, of "heart disease and dropsy." With regard to the child, the father could not remember that she had ever gone through any acute illness. When I describe to you the condition of the child, you will find it difficult to understand how she could have reached the state in which she is at present without some initial acute illness to explain it. However, all we can learn about her is that she has been looked upon as the delicate one of the



family, the others being healthy. If you were to guess at her age you would probably say that it was about 12 to 13 years.

On admission, the features which at once attracted attention were the cyanosis, the purple colour of lips and ears, and the livid cheeks, the puffy face, the dyspnœa, and the clubbing of the fingers and thumbs. The legs were œdematous and studded with a purpuric rash. On examination, the heart was found to be much enlarged (*v.* diagram). It extended beyond the right border of the sternum, above, to the level of the second space, and to the left outwards as far as the posterior axillary line in the seventh intercostal space. There was marked præcordial bulging and pulsation; there was no systolic retraction, nor was there any thrill to be felt. The systolic murmur over the apex is now regarded as characteristic of mitral valvular disease, but when the patient was admitted we thought it was heard more readily in the third and fourth left spaces, close to the sternum, than over the region of the impulse. I shall discuss this murmur later. There were râles at the bases of the lungs, and rhonchi scattered over both sides. The liver was considerably enlarged, reaching two inches below the costal margin. The spleen was very large indeed (*v.* diagram) —larger than I have seen before in a case of heart disease. The urine was bright red in colour from admixture with blood, and there were five parts per thousand of albumen. A few casts were found with the microscope after centrifugalisation of the urine, but neither on admission nor at the present time was there any clinical evidence of an acute nephritis. In September, 1910, the patient was under the care of Dr. Shaw, and I gather that the heart was in very much the same condition at that time, and also the spleen and the liver, although the cyanosis was not as marked.

With regard to the diagnosis of the case, there can be no doubt that the heart is the primary seat of disease; the question which first arose in our minds was whether the lesion was an acquired or a congenital one. The association of polycythæmia, cyanosis, and clubbing of the fingers suggested that the cardiac lesion might be congenital, and at first we were led to look upon such an origin as more likely than we do now, because we thought the systolic murmur was heard best in the third and fourth left intercostal spaces, and because of its long rumbling character. However, we have altered our minds, and it may be useful to you to hear our reasons for doing so.

In the diagnosis of congenital disease of the heart, as in that of the acquired form, it is most important to determine where the murmurs are heard loudest, for the reason that there are

areas associated, more or less closely, with the murmurs due to congenital heart disease. Again, when a thrill exists with a congenital malformation, it is usually felt over a different area than in acquired valvular disease. The age of the child may be important—although it is not applicable in this case—for acute rheumatism, the most common cause of endocarditis, is very rare under three years of age. In most cases of congenital disease one can only guess at the site of the lesion, because the variations and complications which may occur are so many that it may be quite impossible to differentiate them. On the other hand, in some congenital lesions we can get a fair idea of what the condition is; namely, in the case of pulmonary stenosis, of a patent septum ventriculorum, and of a patent ductus arteriosus. In pulmonary stenosis the murmur is heard best over the second left space; it is usually a loud harsh murmur audible all over the præcordium, and it is accompanied by a thrill, and more or less cyanosis. In a patient with a patent septum ventriculorum the murmur is heard best in, or about, the fourth left interspace, close to the sternum; there is no thrill, and as a rule there is no cyanosis. These two malformations co-exist frequently, and so the signs may be due to a combination of them. The cyanosis was one of the signs which suggested congenital disease to us, but I want to impress on you the fact that cyanosis is not a necessary feature of congenital heart disease. When I say, at Out-patients or elsewhere, that I think a murmur is "congenital" in origin, I am often met by someone with the objection that there is no cyanosis, whereas the fact is that half, or more, of the cases of congenital heart disease are not cyanosed.

The third condition mentioned was a patent ductus arteriosus; the ductus arteriosus runs from the trunk of the pulmonary artery to the aorta joining the latter nearly opposite the origin of the left subclavian artery. If this duct remains patent, we get a peculiar murmur—one heard best in the third space, a little to the left of the sternum; it is a long rumbling bruit which runs through nearly the whole of the diastolic as well as of the systolic portion, of the cardiac cycle. All these lesions may co-exist, or there may be others as well into which I need not enter now. Thus you will appreciate that the diagnosis may be far less simple than might appear from the somewhat dogmatic statements just made; at the same time, inasmuch as those to which I have referred are the more common congenital lesions, the signs enumerated are of real value in helping you to a correct diagnosis in a considerable proportion of cases.

In the case before us we thought that the long duration of the systolic murmur, the fact that it was heard so well over the third and fourth left spaces, might, in conjunction with the other features of the case, imply that the cardiac lesion was a congenital one, and possibly a patent ductus arteriosus with partial stenosis or occlusion of the pulmonary artery.

Later on, after the child had been in bed some days, and the heart was beating more quietly, we found that the murmur was heard as well, if not better, over the most external point of the cardiac impulse in the axilla, and that it was well transmitted to the back, being very clearly audible along each side of the spine. We then came to the conclusion that the case was one of mitral regurgitation, the result of acquired valvular disease. If the heart disease was acquired, what was the cause of it? It is common enough to meet with cases of valvular heart disease in which no history of acute rheumatism, or other cause, is obtainable, and inasmuch as endocarditis may be the only evidence of rheumatism in a child, we must accept it as the most likely explanation, difficult though it may be to understand the absence of any severe initial illness in a case with such an enormous heart as that of our patient. One of our colleagues saw the child with us about ten days after she had been admitted, and he gave it as his opinion that the condition was acquired and not congenital, the bruit being regarded as characteristic of mitral regurgitation. Although mitral incompetence is the most common valvular lesion, it rarely occurs in the class of case with which we are dealing to-day, without stenosis, and we think that in all probability mitral stenosis does exist, for in addition to the mitral systolic murmur there is a rumbling sound preceding it, heard best over the position of the cardiac impulse in the axilla. We cannot be certain of the stenosis for there is no thrill, and the murmur is not a typical presystolic one. It is possible that the rumbling sound preceding the systolic murmur is what is sometimes called a Flint's murmur, developed in cases where the left ventricle is much enlarged, such as with aortic regurgitation, or with an adherent pericardium which we think is present in this case. One theory of the production of this murmur is that it is due to a relative mitral stenosis: the mitral orifice being narrow in comparison with the enlarged cavity of the left ventricle beyond, while another theory is that in aortic incompe-

tence the regurgitant stream of blood impinges on the large anterior mitral cusp, and therefore tends to obstruct the flow of blood from the veins and auricles, particularly during the contraction of the auricle.

Will mitral incompetence and stenosis account for the great enlargement of the heart in this case? They may lead to hypertrophy of the right auricle and ventricle, and also to a less marked hypertrophy, with dilatation, of the left ventricle; but the enlargement of the *left* ventricle is not as a rule very marked unless the mitral disease is combined with some other serious valvular defect, such as aortic incompetence or myocardial degeneration, or an adherent pericardium.

On the other hand, the *right* auricle and ventricle may be enlarged to two or three times their normal size, giving rise to changes in the size and shape of these cavities, and producing considerable deviation in the position of the heart. The right ventricle becomes more spherical in shape and more horizontal in position, and the more the right auricle and ventricle are enlarged the more is the left ventricle displaced to the left. With these changes, especially in the elastic chests of young children, the præcordium bulges, and the pulsations of the heart become more diffuse and forcible, being both seen and felt all over the præcordium and in the epigastrium. But even though such an enlargement of the right side may exist, yet we think it is not sufficient to account for the great size of the heart in this patient (*i.* diagram), and to afford a satisfactory explanation we have suggested that she has an adherent pericardium. It was an old Guy's man, Dr. Theodore Fisher, who stated that in cases of great enlargement of the heart, in children, unassociated with aortic incompetence, there is almost certain to be an adherent pericardium. Post-mortem experience demonstrates conclusively the truth of this statement, though clinically it may be difficult or impossible to prove it in many cases.

When we remember how insidious is the onset of acute rheumatism upon the hearts of children, and how frequently it involves valve, muscle, and serous sac simultaneously, or successively, it is not difficult to appreciate that pericarditis may be, and indeed is, at times, overlooked. Extensive adhesions may form and become organised rapidly, the embarrassment which ensues being dependent upon the extent of the adhesions, and if they are, as is usually the case, associated with endocarditis and myocarditis, then the pericardial adhesion is an important factor in increasing the cardiac hypertrophy. You may say that I have not brought forward any evidence in this case of the existence of an adherent pericardium. There is no systolic recession over the apical region, no retraction over the præcordium, nor any recession of the posterior and lateral part of the chest wall. Even when these signs are present you cannot be sure that the pericardium is adherent, for in many a hypertrophied heart, particularly if due to aortic regurgitation, systolic retraction occurs. In other cases the pericardium is adherent although there are no physical signs to indicate it.

The next feature of interest in the case is the *polycythæmia*. It was the presence of cyanosis which led us to examine the blood, with a resulting count of 7,500,000 red cells per c.mm. or half as many again as usual. In cases of heart disease in which the blood pressure is low and where the heart is doing its work very inefficiently, the red cell count is a low one. The condition in which polycythæmia occurs is one of chronic stasis with cyanosis where the heart is able to do its work moderately well, as in this particular case. It was thought at one time that this polycythæmia was due to a concentration of the blood mainly in the peripheral venous circulation as the result of the chronic stasis, and perhaps also from transudation of lymph into serous cavities and lymph spaces. This is not a sufficient explanation, and in this connection I would draw your attention to some work which was done by Dr. F. Parkes Weber on a case of congenital heart disease in a man of 22 years of age with well-marked cyanosis and polycythæmia, over 10,000,000 red corpuscles to the cubic millimetre, or double the normal count. In the first case which he recorded he brought forward evidence to show that the excess of red cells was of a compensatory nature, a manifestation of an attempt, as he puts it, on the part of the red marrow to make up for the imperfect oxygenation of the blood and tissues of the body by increasing the number of oxygen carriers. In another case, Parkes Weber and Dorner made careful estimations in a man aged 29, who had congenital pulmonary stenosis with great lividity, and they found that the number of red corpuscles and the amount of hæmoglobin were about double the normal, and also that the volume of the blood, per 100 grammes of body weight, was very much greater than in normal people. Therefore, as Dr. Weber points out, the polycythæmia in this case is not merely a matter of inspissation or of concentration of blood from stasis, but is due to an increased formation of red blood cells. Gibson has demonstrated that it is not alone a question of concentration of blood from stasis in the peripheral circulation,

for in a case he reported there was a great increase of red cells in the blood taken from an artery, as well as in that from the veins and capillaries.

In the case published by Dr. Gibson there were 7,000,000 red cells in the arterial blood, 8,500,000 in blood from the capillaries, and 10,000,000 in that from a vein. In another interesting case, published by Lorrain Smith and McKisack, of a boy 12 years of age suffering from adherent pericardium and chronic cyanosis, it was shown that not only the proportion of red cells to the blood plasma was excessive, but also that the total volume of blood was greater than normal, so that a true polycythæmia, an actual increase in the number of red cells, was present.

More than one observer has recorded cases of polycythæmia and cyanosis in chronic heart disease in which microscopical examinations of the bone-marrow after death showed that all trace of the ordinary fatty tissue had gone, its place being taken by red marrow—that is, that there had been an erythroblastic reaction in the bone-marrow, and consequently an increase of the erythrocytes in the body. You may ask us whether this polycythæmia is of any value when we have determined its presence, and we can answer in the affirmative in all probability. This polycythæmia, this increase in the number of oxygen carriers, helps to compensate for the deficient oxygenation of the blood and tissues which results from the cardiac lesion. Nevertheless, the mere existence of cyanosis and polycythæmia indicates a serious deficiency in the heart's action, and so implies a severe form of heart disease. I wish to state that the cases referred to are taken from a paper by Drs. Parkes Weber and Dorner, printed in the *Lancet* for January 21st, 1911.

The next feature of interest is the great *enlargement of the spleen*. I do not remember to have seen a case of heart disease in which the spleen was so large as in our patient, and the question at once arose whether the enlargement was secondary to the heart disease, or whether it was due to some other cause altogether. Great enlargement of the spleen, such as exists in this case, is met with in leukæmia, sometimes in lymphadenoma, in spleno-megalic polycythæmia or erythræmia, and in splenic anæmia. The blood examination eliminated the possibility of leukæmia and splenic anæmia. Spleno-megalic polycythæmia was negatived not only because the cyanosis was of a lesser degree than is commonly met with in this group, but also because of a similar relation to the polycythæmia. In the spleno-megalic polycythæmias a count of 9,000,000 to 10,000,000 is an average one, while 12,000,000 per c.mm., and more, has been recorded. Hodgkin's disease was excluded, as there were no enlarged glands or lymphadenomatous deposits found.

What other causes are there—causes which may, for example, produce a spleen of 30 ozs., for we think this spleen approximates to such a weight? There are infective endocarditis, typhoid fever, malaria, and cirrhosis of the liver. Typhoid fever and malaria may be excluded. In some cases of heart disease the spleen may be enlarged by infarcts, the spleen being palpable an inch or an inch and a half below the costal margin. The degree of enlargement in this case is very unlikely to be due to infarction alone; it is too great. It is the degree which is probably reached by progressive swelling of the organ due to a poison such as we suppose circulates in the organs and tissues in cases of malaria, and of cirrhosis of the liver, showing a predilection in favour of the spleen, and so giving rise to a general over-growth and congestion of that viscus.

Is the case one in which the spleen is enlarged in association with cirrhosis of the liver? Remember a large spleen is very frequently met with in cases of cirrhosis, and in the cirrhosis of children it is often so large that the name of spleno-megalic cirrhosis has been applied to them. Whatever objections there may be to the name, yet it signifies to you the preponderating feature of this class of case.

A boy with this disease, whose case was reported by Dr. Taylor in the Guy's Reports, had an enormous spleen, as you see from the outline on the blackboard. The spleen weighed 87½ ozs. But, like most of this group of cases, he was a boy who gradually became shrunken and wasted; he was deeply jaundiced, he had ascites, for which he had to be tapped, and he had epistaxis and bleedings elsewhere. This case was clinically not the least bit in the world like the patient I have brought to your notice to-day. The stunted growth, the pigmentation of the skin, and the clubbing of fingers and toes, are also interesting characters of these cases.

Now we come to the last cause to be mentioned, "infective endocarditis," which the "Clinicals" and I think is the diagnosis most applicable to our patient. It is so, not only because it allows the whole condition to be

included under one title, but because to my mind the clinical features of the case are best explained by supposing that a chronic malignant endocarditis has been implanted upon a simple endocarditis of some standing.

That an infective endocarditis may give rise to a very large spleen is well known. Dr. Taylor, in his Lumleian lectures for 1904, refers to cases, amongst others, in the Guy's records, where the weight of the viscus reached 43, 35, 30, 26 and 28 ozs. In fact, infective endocarditis is one of the most common causes of great enlargement of the spleen, and, although infarcts may be present, these infarcts are not the sole or chief cause of the enlargement. The enlargement, when of considerable degree, is of the nature of an infective swelling comparable with that which takes place in typhoid fever, but developing, as a rule, more gradually.

What evidence is there of infective endocarditis in this case? The patient has been in the hospital three weeks and she has had some degree of fever throughout, the temperature rising to about 100–101° F. in the evening and going down to normal or subnormal in the morning. There were purpuric spots over the legs when she was admitted, and she has had persistent hæmaturia and albuminuria. Probably the condition of the urine may be partly accounted for by infarcts in the kidney; the purpura and pyrexia require some further explanation, which we think is, that there is a poison circulating in her blood and tissues in association with an infection of the valves of the heart. In order to try and prove whether it was infective endocarditis, we took some blood from a vein for examination, but, as happens in a good many cases of infective endocarditis, bacteriological investigation was negative.

Clubbing of the fingers is another interesting condition present in this case. It is of moderate degree and is said to have been present about eighteen months. As it is a rare feature of heart disease, except in the congenital form, it is worth your while to notice it. We know this condition well enough in association with chronic lung disease, as, for example, with bronchiectasis, and it has been recorded as occurring in some cases of heart disease, particularly in association with chronic pericarditis, and also in cases of aortic disease where peripheral venous stasis is well developed.

In this case there is no question as to the peripheral venous stasis which, without doubt, accounts for the clubbing of the fingers and toes. It is a very rare feature in "mitral" disease; I have never seen an example of it in this disease before, though I am told that there is another case in one of Dr. Shaw's wards at the present time.

With regard to progress and *treatment*, the patient has been kept strictly in bed, as rest is what is likely to help her most; her diet has been a simple mixed diet.

If the polycythæmia is a compensatory development, a manifestation on the part of the red marrow to make up for imperfect oxygenation of the blood and tissues, then one might expect that as the heart was given less work to do, and the call of the tissues upon the red cells was lessened, so the polycythæmia would diminish or disappear.

At any rate we can say this, that the condition of the heart itself has improved temporarily, the cyanosis is less marked, although even now it varies somewhat; the œdema and purpura have disappeared, and no sign of any further heart infection has appeared up to the present. The second blood count showed 5,900,000 red blood cells to the cubic millimetre, and on May 1st 6,195,000 red blood cells. With regard to drugs, the patient was given at first a mixture containing tincture of digitalis, squills and caffeine, and the amount of fluid she took with her food was somewhat limited. With the exception that the caffeine has been omitted the mixture has been continued up to the present time. There is no more to be said about the treatment, although if the bacteriologists had been able to discover an organism in her blood we should have asked them to make a vaccine for us, and tried the administration of it very carefully and tentatively at first. If we are correct in the diagnosis of "malignant endocarditis," it is worth while to try anything which offers the least hope, as it is a disease which up to the present has proved almost invariably fatal.

Note.—The subsequent history of the case is as follows: On May 12th a small abscess developed on the index finger of the right hand and later the arm became œdematous. On May 16th a pericardial rub was heard. The temperature had been higher than before and more remittent in type.

On May 27th a diffuse inflammatory condition of the skin of the face and head commenced; it appeared in the form of papules which, becoming vesicular, ultimately coalesced and suppurated. The right arm became more

œdematous. There was a leucocytosis of 23,125; 86·2 per cent. of the leucocytes being of the olymorphonuclear type.

Considerable œdema of both legs again appeared, and a diffuse purpura on the arms. Latterly the spleen had been diminishing in size somewhat rapidly. The patient gradually became weaker and died on June 5th, 1911.

Thus the course the case took after the date of the lecture, namely, the development of pericarditis, the re-appearance of purpura, the pyodermia, and associated remittent pyrexia, indicated a septicæmia, which, in view of the cardiac lesion, was due in all probability to an infective endocarditis.

Autopsy.—The lungs were tough "heart" lungs in a condition of red induration. Many petechial hæmorrhages were present in the mucous membrane of the trachea and bronchi. There was a recent pericarditis, with some twelve ounces of slightly blood stained fluid in the sac; no old adhesions.

The right side of the heart was much dilated and hypertrophied, and spherical in shape, the lower portion of the right ventricle formed the heart's apex, projecting beyond and overlapping the apex of the left ventricle. The left side of the heart was very small, and undeveloped in appearance, just like that met with in many cases of mitral stenosis contracted during childhood; the aorta, too, was very ill-developed, measuring only one inch in circumference as compared with three inches for the pulmonary artery.

There was *no* chronic endocarditis, but a recent infective process in the form of granulation tissue undergoing necrosis, projecting from the tricuspid and the mitral valves. The mitral chordæ were involved in an extension of the inflammatory granulation tissue on to them, and a resulting softening had led to erosion and rupture of some of the chordæ. The granulation tissue had also spread on to the wall of the left auricle forming a warty patch the size of a shilling.

There was a large opening, fully an inch in diameter, in the inter-auricular septum. The spleen, much enlarged (391 grammes) and of tough consistence, contained two infarcts each about an inch in length from apex to base.

The liver was enlarged and "nutmegged" (1,108 grammes). In the kidneys there were scars of one or two old infarcts, but owing to post-mortem decomposition it was impossible to determine the changes which had taken place in them. Weight 278 grammes.

Bacteriological cultivations made from the spleen and from the blood in the heart showed the presence of a streptococcus longus, a pure culture being obtained from the spleen.

Remarks.—One of the special features of interest in the autopsy on this case was the demonstration that the diagnosis of acquired heart disease was quite wrong—one more of the many instances of the fallibility of dogmatic teaching, however necessary it may be, and of the value of post-mortem examinations. The original cardiac lesion was a congenital one—a large clean-edged hole in the auricular septum. Sir Samuel Wilks pointed out long ago that this was an uncommon malformation in congenital heart disease. Although it was present in this case—and it is probable that only a widely patent foramen ovale causes a bruit—yet the congenital malformations previously referred to in the lecture are the common forms. The slight degree of patency of the foramen ovale in normal infants is not associated with any murmur. The whole of the systemic side of the circulation was undeveloped. The femoral arteries were noticed during life to feel little, if any, bigger than a radial artery, and the aorta was only an inch in circumference. It was clear that the right side was the one which had done the greater portion of the work, and to it was due the spherical shape and large size of the heart as determined during life. The diagnosis of an infective endocarditis was confirmed, and a pure cultivation of streptococci was obtained from the blood.

It is of interest to notice that, although the spleen had diminished considerably in size during the last few days of life, the enlargement was due to a general increase in the tissues composing the viscus, and not to the presence of infarcts, only two small ones being found.

You may remember that we were unable to obtain any history of an acute illness, and that the child was said to have been "delicate" all her life, the result, as we see now, of the congenital heart disease. The case, too, shows the difficulty which may arise in differentiating acquired from congenital heart disease when one does not know the age at which the bruit and other signs appeared. If, for example, we had known of the existence of the bruit when the child was two years of age, we should have said it was a "congenital" murmur, despite its distribution, because acute rheumatism is, for practical purposes, unknown before that age.

Gynæcological Reports.

IT must be admitted with regret that a large majority of students regard the writing of clinical reports as a very distasteful part of their curriculum. This is due to the fact that they do not appreciate at that period of their career the great educational value of writing out in full the clinical history, diagnosis, and treatment of the cases under their charge. But I do not propose to discuss the making of reports from that point of view.

In Out-patient work it is absolutely essential to preserve notes of the cases, both for the immediate purposes of diagnosis and treatment, and to save the trouble of going over the clinical history again at each subsequent attendance. Owing to the press of work, such notes cannot attain to the dignity of a clinical report, but they are of none the less value if made in a methodical manner and with intelligence. So I will commend the following scheme for making such notes to the consideration of my faithful helpers in the Out-Patient Department, merely adding that it has been well tested and has proved efficient.

SCHEME FOR OUT-PATIENT NOTES.

Name ...	Ann Smith, 30. Married.
Complaint	Losing too much.
History ...	Illness dates from early abortion 9 months ago. Had severe floodings, with fever. In bed 6 weeks. Never well since.
Menst. ...	15 ; reg. every month. 5 days. No special pain. Now periods every 2–3 weeks, lasting 6–10 days. Last period, week ago.
Pgy. ...	3 full-term + 1 abortion at 3rd month; *v.* above. Last pgy., 9 months ago.
V. D. ...	Yellow or brownish. Persistent.
Mict. ...	N.
Def. ...	B. very costive.
On ex. ...	Anæmic. Uterus retroverted, bulky, and tender. Os closed. Nil in fornices.
Diag. ...	Subinvolution and chronic endometritis
Treat. ...	Exploration and curetting advised.

It may be contended that such an abbreviated report can be of no value to anyone but the writer, and to some extent this may be true. It is obvious there are many important omissions, some of which are to be supplied by the writer's knowledge of his subject, while others must be assumed as non-existent because they are not mentioned. It was said of a famous preacher at St. Paul's that he never used one word where seven would do. But his style cannot be recommended to the clinical reporter at Out-patients. What we want there is the maximum of information in the fewest words, but it must be methodically arranged so that no important detail should be overlooked. Let me, then, expand the scheme and make a few remarks about the different headings.

1. In the first place, note prominently whether the patient is single, married, or widow. This prevents unpleasant questions at the outset, and if the single woman has had a child the fact will be revealed at a later stage of the examination.

2. Always put down a patient's complaint in her own words, at least, when it can be reduced to a short phrase! The prolixity of some out-patients may make this difficult. Do not use scientific terms here, such as metrorrhagia, dysmenorrhœa, etc., for until the case has been thoroughly investigated, it is impossible to know whether or not they are accurately employed. What the patient complains of is what she wishes to be relieved from, without regard to the pathology of her case. Hence, use simple phrases, such as "losing too much," "pain at the monthly times," "discharge from the front passage," and the like.

3. The history of the illness is of great value for the purposes of diagnosis, but to record the important facts succinctly much clinical experience is needed, as well as some ingenuity. The voluble patient rolls out her symptoms, and to the novice they all seem of equal value. Our imaginary case dates her illness from an early miscarriage which, in all probability, was an incomplete abortion, because she suffered from severe floodings and fever. The fever might be explained by decomposition of retained placenta or membranes (sapræmia), but as the patient was ill enough to be kept in bed for six weeks, it is much more likely that she suffered from puerperal septicæmia. From that time onwards menstruation has been excessive, and she has not been in good health; doubtless she was weak from the too frequent hæmorrhages.

The history of the illness in this instance is much too condensed to be of real value, but it will serve to illustrate my point that we want the important facts concisely stated. To do this well, a knowledge of the subject and considerable practice are needed. Therefore, take every opportunity of gaining this facility by work in the Out-Patient Department.

4. There are certain routine enquiries which must be made in every gyæcological case, even if they seem to have no bearing on the patient's complaint. The advantage of a scheme as here suggested becomes apparent, for these routine enquiries will not then be forgotten. First and foremost comes menstruation. Under this heading we want to know what is the patient's normal habit when in good health, and then how the function has been disturbed by her present illness. A convenient way of stating these facts is to

place the normal habit on one line, and the variations from it on the line below. Thus, the scheme indicates that the patient began to menstruate at 15 years of age and that formerly the periods were regular every month, lasting five days, with no special pain. Since the onset of her illness menstruation has been irregular in time and more profuse in quantity; in fact, she is suffering from menorrhagia—not metrorrhagia—because the periodicity is maintained, though imperfectly. There are several other questions with regard to menstruation that may be asked in special cases, but the above will serve our present purposes.

5. The heading relating to pregnancy may or may not require to be elaborated. We want to know the number of pregnancies ("pgy." is the generally accepted abbreviation), and whether they were full-term or miscarriages. If the patient has had several abortions, an explanation must be sought. If the complaint is "prolapse" we must enquire carefully into her full-term labours, because the displacement probably dates from a difficult confinement requiring the use of instruments. Hence, in some reports this heading must be given fully, in others it can be very briefly stated.

6. The next three enquiries relate to the "excretions," or the discharges from the three passages of the female, and it is best to group them together. Under micturition can be placed any remarks about the urine as well as those relating to pain, frequency, or difficulty in passing water.

7. We come now to the most important paragraph—that dealing with the "condition on admission," as it is generally termed in the ward reports. Here we want as much information as possible in positive statements, and very few negatives. For it must be assumed that what is neither affirmed nor denied was non-existent, or had no bearing on the case. Hence, I repeat, a good knowledge of the subject is absolutely essential for completing this paragraph, and the student will naturally secure the help of his teacher for it. However brief the account, let it include a word or phrase as to the general condition of the patient: anæmic, much wasted, very stout, and so forth. There are many facts which we do not attempt to determine at Out-patients. They are best left until the patient is in the ward or under an anæsthetic. For example, we do not pass a sound at Out-patients to find the size of the uterus. It is sufficient to note that the uterus feels larger than normal. Also no attempt would be made to restore the uterus to its normal position in our imaginary case, because it needs an operation and not treatment by pessary.

Let me explain the phrase "nil in fornices." "Nil" is a very convenient expression for "nothing felt abnormal or pathological." Hence, "nil in abdomen or pelvis" does not mean that the patient is devoid of abdominal and pelvic viscera, but merely that you do not feel anything unnatural in those cavities. Nil in fornices refers chiefly to the uterine appendages, and in the case discussed is an important negative, because inflammatory thickening of the appendages might have been present with a clinical history of sepsis after abortion.

8. The last two headings need emphasis, but no explanation. Always make a diagnosis or diagnoses if the case admits of an alternative opinion, and write them down. Never mind if you are wrong. It is a truism that we learn more from failures than successes. When the patient returns a week hence, you may find that the hard nodular mass in the pelvis so suspiciously like a malignant growth has quietly disappeared under the benign influence of an appropriate aperient. That lesson will be of value for the rest of your life.

Note the word "exploration" under the heading of treatment. It obviously means exploration of the uterine cavity, not of the abdomen. But as every curetting operation must be an exploration of the uterus, the term is here employed to indicate a doubt in the writer's mind from the previous history of the case, whether or not a placental polypus or other lesion might be found within the uterus. Memory is a treacherous thing, and any word or phrase which will serve to recall the previous train of thought is not to be despised.

J. H. TARGETT.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

Casualty Entrance.

SIR,—I wish to call attention to a matter which I consider of great importance, namely, the lack of proper notification, at the front gates, as to where the Casualty Department is situated.

Time and again I have seen a serious case rushed up to the colonnade steps only to be directed to Maze Pond. In some cases, even the delay of turning a cart in the front quadrangle may lead to serious consequences; but far more serious is the feeling of annoyance or even disgust with which the friends turn away to seek the Surgery, while the patient resigns himself to another few minutes of pain.

There is a board "of a kind" on the East side of the gate, but more people approach from the West side and consequently turn in at the gate.

Surely we should have a proper notice board on each side of the gate, and, at dark, an illuminated sign, with a direction arrow, to ensure the patients reaching the Surgery with the least possible delay.—Yours, etc.,

14th July, 1911. J.B.N.P.

[We refer to this matter in Passim.—ED. G.H.G.]

Miss Newton's Testimonial.

DEAR SIR,—Will you allow me, through the medium of the GAZETTE, to express to all my friends my most grateful thanks for the kind and generous manner in which they have subscribed to my testimonial?

I shall ever retain most pleasant memories of my 30 years spent among them, and shall prize most highly the beautiful illuminated framed letter which has been presented to me.—Yours very truly,

MARY NEWTON.

The College, Guy's Hospital
July 13th 1911.

A Garden Party.

IN the morning, the dull drab poverty of the Borough, the atmosphere of the Out-patient Department, the pettiness of minor ailments; in the afternoon a magnificent estate, the beauty of one of the most delightful gardens we have ever seen, and the perfume of a thousand fragrant flowers. So great was the contrast that we were inclined to appreciate the one in that it accentuated the other.

The Garden Party which Sir Everard Hambro very kindly gave to the nurses, staff and residents of Guy's Hospital, was held on Tuesday and Wednesday, July 11th and 12th, and on both days was favoured by the most perfect weather. The guests were taken to Hayes Place in a special train, and after being received by Sir Everard and Lady Hambro, were provided with an excellent lunch in tents which had been erected in the grounds. When lunch was finished, the company amused itself in various ways. An orchestra played beneath a magnificent cedar tree the tunes that a perfect summer's day suggests; a fortune-teller was kept hard at work telling many nurses—many things; there were swings, croquet, tennis and clock golf for the energetic, and for the lazy—we had almost said for the wise—a succession of beautiful pictures such as nature alone can paint. We saw an Alpine garden, a water garden—a bed of sleepy water-lilies which reflected the langour of the summer's day—and, in fact, every kind of flower, plant and tree. We were told of treasures in the house itself—of prints, of paintings, of furniture, and of china—but with such a garden and such a day, we were loth to come within the grip of four walls any sooner than was absolutely necessary. Tea was welcomed by everyone, and after a further walk through the grounds, or a visit to the farm, where, by the way, a black cow put several nurses' courage to a severe test, the ringing of a bell announced the inevitable end.

Mr. Cosmo Bonsor proposed a vote of thanks to Sir Everard and Lady Hambro, which was carried with acclamation, and after "Auld Lang Syne" had been sung, a reluctant move was made to the station. We can but express our enjoyment of the day by saying that it was an ideal day spent in an ideal spot.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Diseases of the Lungs and Pleura. By Powell and Hartley. (Lewis). 21s.

This book records the authors' experiences and deals fully with its subject. The introductory chapters deal concisely with the anatomy and physiology and physical examination of the chest. Then comes a chapter on deformities of the chest, which would be improved by illustrations. The chapters on diseases of the pleura are clear and definite. Broncho-pneumonia is dealt with in a very few pages, the bacteriology being well discussed, the clinical course and terminations of the disease hardly fully enough.

Phthisis is dealt with at great length (260 pages) and from every point of view. An excellent chapter on the ætiology is followed by a very interesting discussion of the pathology, which is clear enough at least to be well understood after a second perusal. The varieties of the disease are then described in detail under the headings of acute, subacute, and chronic tuberculosis of the lung, and fibroid phthisis. The distinction between chronic tuberculosis of the lung and fibroid phthisis seems to us unprofitable and artificial. The later chapters discuss in detail sanatorium treatment, exercises and diet, and give a very comprehensive list of air stations. The last chapter on treatment deals fairly and critically with an estimate of the value of tuberculin and serum treatment.

The book throughout is thoroughly up to date, supplied with a very full list of references at the end of every chapter, and a careful index. It is illustrated by diagrams and x-ray photographs, and copious photographs of post-mortem specimens: these are good, but even the best photographs of post-mortem specimens are not usually very illuminating.

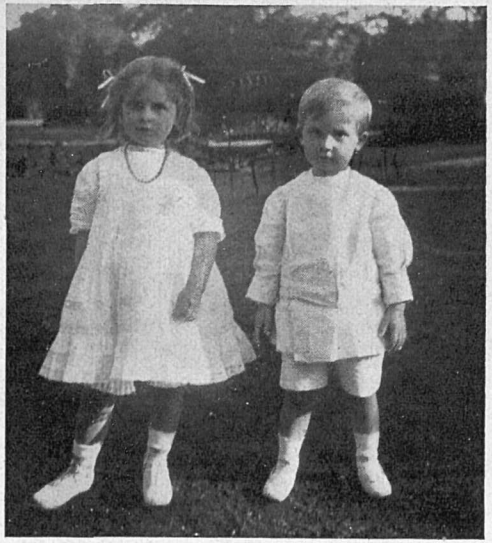
The book also contains chapters dealing with rarer diseases of the lungs.

The authors speak of hypertrophy of the lung; we should like to have proof that there is such a condition: they also speak of strumous patients, and we should like to know what strumous patients are.

The book well repays perusal, but the paper and general appearance of the book is hardly compatible with the price, nor is it worthy of the authors or the contents.

An Introduction to Therapeutic Inoculation. By D. W. Carmalt Jones. (Macmillan & Co.) 3s. 6d.

That vaccine therapy has come to stay is just as much a fact as that the extravagant promises made by enthusiastic immunisators in the early days of their clinical experience, like many other promises, remain unfulfilled. Having granted our first proposition, the necessity for an introductory treatise to this branch of medical practice on sound lines becomes



Miss Mary and Master Eric Martin Smith.

The Matron, Sir Everard Hambro,
and
Mr. Cosmo Bonsor.

Hayes Place.

Starting.

The End.

At Hayes Place.

Photographs by Miss Smith.

obvious, since the earlier writings on the subject were given over in the majority of instances to illustrative cases which formed the pegs on which the promises before mentioned were hung. The volume under review, by Dr. Carmalt Jones, meets the requirements of the practitioner in a very satisfactory manner, in arrangement and matter no less than in price. The elementary principles of immunity upon which vaccine treatment is based are laid down in eminently readable fashion—technical terms invented to express abstract ideas having been replaced almost entirely by succinct explanations of concrete examples. In a volume of the sort it is perhaps hardly to be wondered at that the methods adopted for the *diagnosis* of bacterial infections have been relegated to a short chapter of less than a dozen pages, and we would venture to suggest to the author that in a future edition this portion of his subject might with advantage be elaborated, since accurate diagnosis is imperative if empirical treatment is to give place to scientific therapy. The chapters dealing with the rationale of therapeutic inoculations and their results, and with observations upon the value of investigations into the opsonic index, present a very fair and impartial review of this portion of the subject.

On the whole, we are pleased to find that the principles of therapeutic inoculation enunciated in the first section of this little hand-book are quite in accordance with the teachings of our own Bacteriological Department here at Guy's, and while recognising the value of vaccine treatment, the author refrains from suggesting that both surgeon and physician must of necessity discard the knife and stethoscope in favour of the hypodermic syringe. When our author turns to the practice of therapeutic inoculation, he introduces the personal note by summarising under a few broad headings the cases that either he has personally treated, or that have come under his cognisance, during treatment by his colleagues, in the Therapeutic Inoculation Department at St. Mary's Hospital. This section contains much that might have been omitted, for the number of cases treated under any particular heading is so small, and the arm of coincidence is so long, that we fail to see the value of such a synopsis as this:—

Lupus—21 cases treated.
Cured, 3.
Much better, 9.
Better, 8.
Unchanged, 1.

A short appendix gives some concise instructions enabling the practitioner to manufacture various small pieces of apparatus, to estimate the opsonic index and to prepare vaccines, and although it is but rarely that the practitioner will have the time to acquire the necessary dexterity and experience for these investigations, there is no doubt that a proper appreciation of the processes involved will be of great assistance to him when working with the vaccine specialist.

Speaking generally, we consider this little handbook presents a very fair and reasonable survey of the subject of therapeutic inoculation, and we have no hesitation in strongly recommending it to those who wish to avail themselves of this new and exceedingly valuable weapon in the fight against bacterial infections.

Massage in Practice: For Certified Workers. By Margaret Atkey. (The Scientific Press, Ltd.) 2s. 6d.

This book will certainly be found to be of great practical value to the class of workers for whom it has specially been written—Certificated Masseuses who have not had many years of personal experience in the art. As is stated in the introduction, there are many and varied text-books for the benefit of those studying to obtain a Massage Certificate, and we agree with the statement of the authoress that a convenient hand-book has long been wanted giving simple and detailed directions of the most useful movements for the various conditions for which massage is ordered.

The chapters on Massage for Fractures and all abnormal joint conditions give valuable instruction in a special branch of the work which can claim greatly to assist modern surgery in its present-day treatment of such injuries.

The explanations and methods advocated in dealing with all forms of nerve disease are thoroughly good, and evidently the result of practical experience.

We imagine, however, that dissentients will be found to the statement that primary sciatica can be cured by three weeks' treatment.

Two points of much importance are brought to the notice of the reader, as they should be, by a writer who is before all other things a trained nurse, addressing many who are certificated in massage only.

Firstly, the authority of the medical man in charge of the case is upheld and the masseuse instructed as to the occasions on which she should refer to his guidance.

Secondly, the nursing details are most helpful and show sympathy with and experience in work among sick people. To give two examples: massage for insomnia, would be robbed of half its value without the half light, fire, and ventilation attended to, and the hot drink in readiness.

A useful hint for many patients is a very loose night gown with large sleeves, to obviate the trouble of removing it and thus disturbing an invalid.

The Prevention of Dental Caries. By J. Sim Wallace. 1s. 6d. (Pub., *The Dental Record.*)

The Prevention of Dental Caries. By Stanley Colyer. 6d. (Pub., *The Dental Record.*)

In the House of Commons on July 14th, Mr. Runciman stated that from 20–40 per cent. of children in the elementary schools were suffering from extensive dental caries. The appearance of two booklets on this important subject is therefore very timely.

Dr. Sim Wallace is well known as a teacher and scientist. He discusses at length the factors predisposing to and producing dental caries. An especially valuable feature are specimen menus, the one of a diet which will produce dental caries, the other of one which will prevent it. There is also an appendix giving similar lists of foods, which should prove extremely practical to both doctors and dentists in directing the preventive treatment of this disease.

Dr. Stanley Colyer views the matter from another standpoint, that of Medical Officer of Health in a large seaport town. Dr. Colyer also discusses the ætiology of dental caries. In addition to the usual mode of cleansing the teeth, the use of educational and administrative methods is recommended. Dr. Colyer considers that much might be done by impressing on the parents, who often attend the medical inspection of their children, the importance of attention to their teeth, and by the medical officers to insurance companies insisting on applicants being in a sound dental condition before recommending their lives as satisfactory. The daily press, and through its medium the public, is becoming much interested in this problem, and, as Dr. Sim Wallace says in his preface, "Medical men should certainly make sure that it is not *their* precepts which are largely responsible for the widespread prevalence of the disease."

As a concise and practical account of this subject we can confidently recommend these pamphlets to both medical and dental practitioners.

Sport.

Cricket.

GUY'S v. FOREST HILL.

Played at Honor Oak Park on June 28th. We lost the toss and had to field for some considerable time. Montgomery was a welcome opponent, though we wish he would keep his runs to be made against other teams. Hancock and Veale each played a good innings of 33 and 50 respectively. We again had Preston, the Kent pro., out against us, who did the "hat trick" in the early part of our innings, all three clean bowled. Fawcus took 7 wickets for 108.

FOREST HILL.

S. Silverthorne, c Bond, b Fawcus...	9
F. Odell, c & b Curnow	0
A. R. Ingersoll, b Curnow	3
T. Flowers, c Curnow, b Fawcus	5
F. J. Hall, c Hancock, b Fawcus	24
C. F. Phillips, not out	118
H. A. Kennard, c Curnow, b Fawcus	9
R. Montgomery, c Liebson, b Fawcus	53
—. Preston, c Curnow, b Fawcus	24
—. Elborough, st Bond, b Fawcus...	9
W. L. Irwin, not out	0
Extras	22
Total (for 9 wickets)	276

GUY'S.

A. C. Hancock, c & b Flowers	33
G. Dinan, b Preston	1
S. Liebson, b Preston...	0
A. B. Bond, b Preston	0
R. M. Veale, b Preston	50
A. Wacher, b Ingersoll	2
G. W. M. Andrew, b Flowers	15
R. C. Ozanne, b Preston	4
R. Curnow, c Montgomery, b Flowers	3
R. A. Fawcus, b Preston	0
H. N. Purdon, not out	3
Extras	12
Total	123

GUY'S v. THE WANDERERS.

Played at Honor Oak Park on July 1st. We lost the toss and again had a good spell of fielding. Gale took a quiet 113 not out, only hitting seven 4's. For Guy's, Kennedy knocked up an excellent 71; Andrew made 27.

THE WANDERERS.

R. B. Brooks, b Rook...	12
T. C. Stafford, lbw, b Forbes	4
R. Kenward, lbw, b Kennedy	48
P. G. Gale, not out	113
L. S. Wells, b Hancock	23
C. P. Hurditch, c Rook, b Rhys Evans	22
R. H. O'Tha, run out...	26
A. L. Sloper, not out	3
R. L. Bowen, did not bat	—
N. A. Damien, did not bat	—
O. Taylor, did not bat	—
Extras	32
Total (for 6 wickets)	283

GUY'S.

A. C. Hancock, st Brooks, b Wells...	19
A. B. Bond, b Wells...	9
R. M. Veale, b Taylor	7
R. S. Kennedy, ct Brooks, b Taylor	71
H. Lee, b Wells	10
A. F. Rook, st Brooks, b Brown	9
G. W. M. Andrew, b Taylor	27
M. Scott, b Wells	0
R. C. Ozanne, not out	1
J. E. Rhys Evans, b Taylor	0
J. T. T. Forbes, b Wells	6
Extras	10
Total	169

GUY'S v. FOREST HILL.

Played at Forest Hill on July 3rd. We lost the toss once more. Harris bowled really well for us, as did Curnow also. In the batting line, Bond played a good innings of 42, and Harris made 31.

FOREST HILL.

S. Silverthorne, c Hancock, b Harris	18
A. Moore, b Harris	10
A. E. E. Lee, hit wicket, b Harris...	32
A. G. Paton, b Harris	5
S. J. Owens, b Harris	12
L. Dart, lbw, b Curnow	47
J. B. White, b Harris	13
A. B. Nicholls, c Bond, b Curnow...	3
—. Elborough, b Curnow	10
—. Swanton, c Hancock, b Curnow...	0
T. Flowers, not out	11
Extras	9
Total	170

GUY'S.

A. C. Hancock, b Flowers	2
A. B. Bond, b Nicholls	42
R. S. Kennedy, b Dart	19
K. J. T. Keer, run out	6
—. Harris, b Flowers	31
G. W. M. Andrew, b Nicholls	2
F. C. Hunôt, b Paton	1
R. Curnow, b Paton	21
G. Dinan, not out	2
J. E. Rhys Evans, b Paton	9
J. T. T. Forbes, c Dart, b Flowers	3
Extras	2
Total	140

GUY'S v. OLD WHITGIFTIANS.

Played at Honor Oak Park on July 5th. The Old Whitgiftians batted first, and again mistakes in the field cost us dear, and we had to acknowledge defeat. Kennedy again batted well and made top score of 44, Veale being next with 23; the rest of the side did not rise to the occasion, though there was some quite inferior bowling coming down.

OLD WHITGIFTIANS.

C. Pegg, b Curnow	0
W. D. Hackney, st Reynell, b Fawcus	129
A. E. Sandell, c Rook, b Curnow	44
T. Dawson, run out	4
A. G. Newcomb, c Kennedy, b Harkness	1
H. L. Keating, b Harkness	2
G. H. Corke, b Harkness	9
G. Noott, b Hunôt	30
E. Biscoe, c Kennedy, b Fawcus	5
L. J. McNair, not out	6
W. Excelby, b Fawcus	7
Extras	11
Total	248

GUY'S.

A. C. Hancock, b Sandell	18
A. B. Bond, c Sandell, b Pegg	8
R. M. Veale, c Biscoe, b Corke	23
R. S. Kennedy, c McNair, b Corke	44
A. F. Rook, lbw, b Hackney	6
F. C. Hunôt, b Hackney	8
G. W. M. Andrew, b Corke	2
R. A. Fawcus, b Hackney	7
W. R. Reynell, b Hackney	0
A. H. Harkness, not out	5
R. Curnow, c Biscoe, b Hackney	2
Extras	17
Total	140

GUY'S v. CROYDON MENTAL HOSPITAL.

Played at Warlingham on July 8th. After some considerable difficulty Guy's managed to get eight men to go away, three more were unable to be persuaded to go for love or money, so to speak. At first there was only a happy little band of six present, and with two men out for 9 runs, it was a thing to speculate on as to when Guy's innings would be over: but then Birks and Kennedy got together, and by excellent cricket they put on 112 for the third wicket, when Kennedy was caught for a splendid 47. In the meantime, two more of the side arrived. Birks continued to play delightful cricket till lunch time; after the interval he only managed to get one more, and had the bad luck to miss his century by one run. Harkness played good cricket for his 38.

When Guy's fielded they had three subs. in the shape of three residents of the place who were very keen, and caused some considerable amusement. All's well that ends well; those who have been turning out regularly all the season had the pleasure of winning a match on their own. Kennedy took 5 wickets for 67, and Andrew 3 for 40.

Rumour hath it that someone had to pay up over this match.

GUY'S.

A. C. Hancock, b Dalton	0
A. B. Bond, b Dalton	0
A. H. Birks, b Dalton	99
R. S. Kennedy, c Street, b Dalton	47
F. C. Hunôt, b Street	8
A. H. Harkness, c Hannington, b Street	38
G. W. M. Andrew, lbw, b Street	15
J. T. T. Forbes, not out	2
Extras	21
Total	230

CROYDON MENTAL HOSPITAL.

E. Dalton, c Andrew, b Kennedy	53
E. F. Street, c Hadler, b Harkness	50
G. H. Choules, b Kennedy	38
C. Tomblin, c Bond, b Forbes	16
H. Howard, c Hadler, b Andrew	15
F. C. Hannington, b Kennedy	4
C. Bayley, c Bond, b Kennedy	0
G. Dalton, c Birks, b Kennedy	1
T. Bentley, b Andrew	5
J. J. Ware, c Birks, b Andrew	0
Dr. H. M. Barncastle, not out	0
Extras	12
Total	194

GUY'S v. ST. THOMAS'S.

INTER-HOSPITAL CUP FINAL.

Played at Winchmore Hill on July 13th, 14th, and 15th. When St. Thomas's won the toss they got a long way on towards winning the match.

It was a good game, and Guy's were playing an uphill game most of the time, having as they did to field most of Thursday and Friday in the hot sun, whilst their opponents got their fielding in two short spells on Thursday evening and Friday morning, Saturday, of course, being quite cool. Again, we had to go in each time against large totals.

But to take the play in some detail. Guy's took the field at about 10.45 on Thursday, and for a time all went well; Kahlenberg was bowling quite well, and runs came slowly. With 8 wickets down for 122 we looked like doing well. Then came a long stand of 117 by Morcom and Sparks, the former playing admirable cricket, till Kennedy tempted him with a half volley, which found a resting place in the safe hands of A. F. Rook in the deep.

The St. Thomas's innings closed for 290, and we went in with about two and a half hours to play. Hancock and Bond gave us an excellent send off, putting on 65 for the first wicket, when Bond was bowled by a leg-break for a good 37. Birks followed, and the score steadily increased till Birks was caught in the slips for 27. Veale followed, and was bowled before he scored. Then Kennedy joined Hancock, and they looked as though they had mastered the bowling; however, Hancock was caught in the last over. Andrew went in to join Kennedy, and they stayed till time.

On resuming on Friday, Andrew was caught at 163, and H. C. Rook failing to score, this brought A. F. Rook and Kennedy together. They played excellent cricket, and added 61 before Rook was taken at the wicket for a splendid 42. Kennedy was eighth out for 42, for which he batted admirably, showing great restraint. Harkness made 19 in good style; Kahlenberg also helped himself to a few 4's. The innings closed for 267, or 23 behind, quite satisfactory.

St. Thomas's went in to bat at about 1 o'clock. Again, we did quite well up to the eighth wicket, which fell at 175, and then came a long stand between Mann and Whortow, who, helped by some luck, played good cricket, and added 137, and the innings closed for 312. Guy's, with 15 minutes' batting, made 6 without loss.

Saturday morning came, dull and disastrous—Hancock caught at the wicket, 8—1—1; Bond bowled, 10—2—6; Birks bowled by a yorker from Morcom, 14—3—2; Veale bowled, after being hit badly on the knee twice, 16—4—4; Kennedy and H. C. Rook bowled by Morcom, and 6 wickets were down for 21 runs. Then, with A. F. Rook and Harkness together some excellent cricket was seen, till Rook was caught for a splendid 33, with the score at 76. Andrew joined Harkness, who was playing really first-class cricket, and they stayed till lunch. After lunch, Harkness was caught in the slips without adding to his score, and retired for a beautiful 55. Andrew was bowled by Morcom for 44, and Kahlenberg enjoyed a merry knock. Hunôt took 10, and was undefeated for the second time in the game, and the innings closed for 201. St. Thomas's thus won by 135 runs.

Harkness bowled quite well, and so did Kahlenberg (not to mention the latter's lucky ball in the second innings, we hope it didn't taste very bad). The fielding throughout was quite good considering the long spells in the field. We congratulate St. Thomas's on winning the cup, and must hope for our revenge next year.

ST. THOMAS'S—1st Innings.

L. W. Shelley, b Kahlenberg	6
W. B. Laird, c Kennedy, b Harkness	55
J. L. Birley, c Hancock, b Kahlenberg	8
G. Cranstown, c Kennedy, b Harkness	13
D. M. Gibson, run out	13
A. R. C. Doorley, b Kahlenberg	1
H. L. Mann, lbw, b Harkness	1
A. F. Morcom, c A. F. Rook, b Kennedy	66
C. G. Whortow, b Kahlenberg	0
C. W. Sparks, not out	67
H. J. B. Fry, b Hunôt	21
Extras	39
Total	290

GUY'S—1st Innings.

A. C. Hancock, c Gibson, b Sparks	54
A. B. Bond, b Sparks	37
A. H. Birks, c Morcom, b Whortow	27
R. M. Veale, b Whortow	0
R. S. Kennedy, b Whortow	42
H. C. Rook, b Whortow	0
A. F. Rook, c Fry, b Morcom	42
G. W. M. Andrew, c Birley, b Cranstown	16
A. H. Harkness, st Fry, b Cranstown	19
F. Kahlenberg, b Morcom	19
F. C. Hunôt, not out	4
Extras	7
Total	267

ST. THOMAS'S—2nd Innings.

W. B. Laird, b Kennedy	27
C. W. Sparks, b Kennedy	30
J. L. Birley, b Kahlenberg	4
A. F. Morcom, c Andrew, b Harkness	19
D. M. Gibson, c Birks, b Harkness	16
L. W. Shelley, run out	9
A. R. C. Doorley, run out	15
H. L. Mann, c Andrew, b Kennedy	73
G. Cranstown, b Harkness	10
C. G. Whortow, b Kennedy	81
H. J. B. Fry, not out	0
Extras	28
Total	312

GUY'S—2nd Innings.

A. C. Hancock, c Fry, b Morcom	6
A. B. Bond, b Whortow	1
A. H. Birks, b Morcom	2
R. M. Veale, b Whortow	4
R. S. Kennedy, b Morcom	4
H. C. Rook, b Morcom	1
A. F. Rook, c Laird, b Morcom	33
A. H. Harkness, c Morcom, b Whortow	55
G. W. M. Andrew, b Morcom	44
F. Kahlenberg, c Laird, b Morcom	26
F. C. Hunôt, not out	10
Extras	15
Total	201

Birth.

HARDENBERG.—On July 6th, at Duffield House, Watford, the wife of E. F. H. Hardenberg, M.B., M.R.C.S., L.R.C.P., of a son.

Marriage.

JORDAN—BRUMLEU.—On the 12th July, at Holy Trinity Church, Sidcup, by the Rev. J. Foster Lepine, Alfred Charles Jordan, M.D., of 14, Weymouth Street, W., third son of the late Albert Jordan, of Bowden, Cheshire, to Christina, third daughter of the late Charles Brumleu, of Mossbank, Sidcup.

Death.

HANDLEY.—On June 9th, at Bombay, Dorothy Rebecca, the beloved eldest daughter of Thomas Handley, of Loughborough, and formerly of the Nursing Staff, Guy's Hospital.

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE.

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Passim.

AT a Court of Committees held on July 9th, Mr. Trethowen was reappointed as Resident Surgical Officer. This post is one calling for a great deal of tact and capacity, as well as for purely surgical skill, and we congratulate Mr. Trethowen upon his well-merited and popular reappointment.

IN the last number of the GAZETTE we noticed an amendment of great importance to hospital nurses which has been added to the National Insurance Bill. A correspondent informs us that a representative committee of hospital matrons and others has been formed to consider the Bill as it affects nurses, and that their deliberations will be brought before those in charge of the Bill. We hope to publish the conclusions which this committee may come to in a future issue.

THE alterations made in the Bill during the present week are of great interest to the profession. Two of Dr. Addison's amendments have been accepted, and go far to removing the opposition of medical men to the scheme. The first amendment provides that medical benefits shall be administered by the local health committees, and not by the friendly societies and the second empowers the local health committees to *compel* those earning above a fixed income, to be settled by the committees, and to *allow* others, to arrange for private medical treatment; the committee to contribute towards the cost of this the amount that would otherwise have been expended on medical benefits. These two additional clauses, taken in conjunction with the free choice of doctor already arranged, meet almost the whole of the recommendations of the British Medical Association, and go a long way towards securing for Mr. Lloyd George that efficient medical service which is necessary to make his scheme a beneficial one.

THESE amendments, however, while placating the medical profession, have aroused a deal of resentment in many quarters, and it is yet doubted by those competent to judge whether the Bill will ever become law. If it does not it will have been killed by many committees and much "approval of its general principles." Its life was, from the very first, endangered by strictly qualified approval. We have in Passim maintained that the Bill calls for the whole-hearted support of the profession, and we trust, now that details have been satisfactorily arranged, that medical men will lend the full weight of their humanity to its support. No ideal system can be created, it must be evolved, and in their search for perfection those who oppose details of the Bill run the danger of losing what they now have offered to them.

WE would congratulate Mr. E. P. Poulton upon his success at the recent M.R.C P. examination. A great many Guy's men have recently successfully attempted the higher examinations

in Medicine and Surgery, and to become an M.R.C.P. while still doing the appointment of House-Physician argues well for the teaching at Guy's and for the standard of House Officers at the Hospital.

WITH the myriad special appointments which beset the path of the present day Student of Medicine, the value of thought as a factor in medical education tends to be more and more neglected. It cannot be too strongly urged that a knowledge of a number of cases is of very little use, without a general scheme of thought into which they can be woven. Thinking is an art which requires the most careful cultivation. The mind which can follow a train of thought to its logical conclusion, neglecting the bypaths which border everywhere the road of the abstract, is the mind which can most efficiently deal with the concrete when, in the form of a particular patient, it presents itself. Naturally a collection of facts, or cases, is necessary in order to provide a train of thought, but we feel sure that an hour spent in endeavouring to fit case to case, or theory to theory is of far greater value, intellectually, than the persistent examination of the hernial orifices.

IT is no doubt perfectly true, in science, that when a sufficiency of facts has been collected, time produces a Darwin to correlate them. Medicine is, however, half art and half science. The scientist collects facts, the artist incorporates them into a generalisation. Neither artist nor scientist alone makes a good doctor, but it is from a proper combination of the two that a good medical mind is produced. At present, however, the artistic side of medicine is neglected. Examinations produce an unhealthy desire for lists and cases, while the teaching of the medical artist is voted unpractical and "useless from an examination point of view." We have long felt that one of the grave faults of school teaching is that boys are told what to think rather than how to think. This fault becomes infinitely more dangerous when carried into the field of medicine. Of course, the student must be first of all told that dulness means consolidation or fluid, and why; but, when he has a sufficient supply of such knowledge, that is, when he is able to observe correctly for himself, it is then that he requires an artistic education.

THE value of an artistic education is that it cultivates a true sense of perspective and of proportion, and thus brings with it the ability to form a complete picture of a disease. Technique is as essential in the art of medicine as in any other art; the technique of the medical artist is his power of sub-conscious thought. In order to obtain and maintain this technique, continued reasoning along logical lines is essential. With it comes the power to form a succession of mental pictures unmarred by the obtrusion of the details from which they are constructed. These pictures are, by the artist, merged into one general view of the disease, with each sign and symptom occupying a place in accordance with its relative importance to the whole. The medicine of the past was primarily an art, the medicine of to-day becomes more and more a science, but the ideal of our profession should be a wise combination of the two.

A VALUABLE collection of Keat's relics, left to Hampstead by Sir Charles Dilke, has been placed on view in the Reference Room of the Hampstead Central Library. Among the relics is the note-book used by Keats as a medical student, of part of which a correspondent sends us a copy. Sir Samuel Wilks, in the Hampstead Annual for 1901, drew up some notes on "Keats as a Medical Student," which are of particular interest in that Sir Samuel knew Mr. George Cooper, the Brentford surgeon, with whom Keats lodged in St. Thomas's Street when both were students at Guy's Hospital.

As will be seen elsewhere in our columns, the third Demonstratorship of Physiology has been filled by the appointment of Mr. H. Gardiner. We have previously pointed out the desirability of having a man with surgical inclinations

attached to the Physiological Department, and we look to Mr. Gardiner to cultivate that almost desolate field of surgical physiology, where we feel sure that a profitable harvest awaits the worker. Chemical ideas at present dominate physiological thought to an extent which is prejudicial to the other aspects of this most cosmopolitan of sciences. This is due partly, no doubt, to the immense progress of chemistry—progress so great as to dim a true perspective—but it is also due largely to the fact that experimental physiology has run so much in the groove of "muscle and nerve" as to blunt originality of thought and observation. The physiology of the frog or the oyster is no doubt of great value from a scientific view point, but what is wanted in Medicine and Surgery is an adequate mixture of scientific and clinical research which shall result in a better understanding of some of the problems presented by that most interesting of animals—man.

We understand that a committee is shortly to be formed to deal with the question of lectures on special subjects. It has always appeared to us a mistake that these lectures should deal in detail with one small part of a subject about which the ordinary student knows practically nothing. What is wanted is rather a more general treatment of a larger part of the subject. Here would surely be an excellent opportunity for the authorities to recognise officially the system of out-patient demonstrations which we advocate so continuously, only because we feel convinced of its immense practical utility. It would no doubt be possible to select a sufficient number of interesting cases from each special department, and to hold a demonstration on them at certain fixed times. The objection that the examining bodies require attendance at lectures on special subjects could easily be met by substituting for out-patient demonstrations the name clinical lectures, which, in the truest sense of the term, they are. No doubt this scheme would entail more trouble to the lecturer than the lectures as at present given, but we think that the keenness shown in the special departments at the Hospital is sufficient to waive this difficulty, providing the suggestion could be proved as popular, efficient and practicable as we feel convinced it would be.

We have received the first copy of an attractive monthly paper entitled *Men of the Day*, which is illustrated by a number of cartoons by "Spy," and other well-known artists. We look forward to seeing some members of the medical profession portrayed in what is often the truest of portraits, and would even offer suggestions for subjects if we did not feel that those we suggested might be almost as offended as those we did not!

The following note was recently received in the Light Department:—

"Dear nurse

"I forget my umbereller it is in the exrase apartment between the sofa and chair would you mind putting it away untill Thursday.

"Oblige,

"A—— T——."

Papers by Guy's Men.

Herbert L. Eason, M.D., M.S., Senior Ophthalmic Surgeon, Guy's Hospital. Notes on the Extraction of Cataract.—*Lancet*, July 29th, 1911.

J. Macdonald Gill, M.D. A Case of Congenital Heart-Block.—*Australian Medical Gazette*, June 20th, 1911.

Donald W. C. Hood, C.V.O., M.D. Cantab., F.R.C.P., Consulting Physician, West London Hospital. Rubella or Measles?—*Lancet*, July 29th, 1911.

G. W. Nicholson, M.A., M.D. Cantab. (with the Director, Cancer Research Institute). Surgical Interference in Cancer (an Experimental Study).—*British Medical Journal*, July 22nd, 1911.

G. Y. Thomson, M.B., B.S. Lond., House-Surgeon, Guy's Hospital. Cases of (1) Chronic Pancreatitis, and (2) Carcinoma of the Pancreas.—*Lancet*, July 22nd, 1911.

F. Herbert Wallace, F.R.C.S. Edin., late Senior Anæsthetist to the Prince of Wales' Hospital, Tottenham. A Case of Plus-pressure Anæsthesia for Exploratory Thoracotomy.—*Lancet*, July 22nd, 1911.

Henry J. Clarke, Junr., M.A., M.B., B.C. A Case of Epithelioma of the Tongue in a Young Woman.—*British Medical Journal*, July 8th, 1911.

Medico-Psychological Association of Great Britain and Ireland.—J. G. Porter Phillips, M.D. Lond., B.S., has been awarded the Gaskell Prize and Gold Medal.

Caliban and Mr. Hyde.

SINCE the earliest dawn of human intelligence man has imagined to himself that he differs from all other animals in having some intangible second self which is variously called the spirit or the soul. We see this idea in the earliest signs of a belief in God, where the burial place of a dead ancestor becomes a temple, and he is propitiated with offerings in order that he may not return to vex his descendants. Homer and Virgil each devote a book to a journey through the home of departed spirits. The whole of Dante's poem turns on the same theme. To the generality of readers the oldest writings in which they meet with any mention of this are the books of Moses. The particular phase of this idea which has guided the whole of Europe since mediæval times is contained in the first of these. Man is described last in the order of creation, as being of the highest type, and created in the image of God. Then in the next chapter his creation is referred to again, and it is said that God "breathed into his nostrils the breath of life, and man became a living soul." By the attainment of knowledge man is said to have got all the attributes of Godhead except immortality. This theory is the basis upon which modern civilisation has been built up. But as man has so often been seen to be bad rather than good, an idea similar to the Persian one of Ahriman and Ormuzd has been grafted on to it, and the Devil is introduced. An evil person is described as having sold himself to the Devil, by which is meant that the soul or spirit, originally divine, is now wholly evil. The next stage in his train of thought is that no person is so good that there is no evil in him, and *vice versa*, no one so bad that he has no grain of good. Hence, we come to the idea of man's spirit made up of good and evil parts, which two parts are continually struggling, the one with the other, for mastery. This theory is held by the mass of people at the present day, though no doubt they hold it subconsciously. It is true that some modern philosophers have rejected entirely the idea of the immortality of the soul, and say that our only claim to immortality rests on our influence, good or bad, upon our descendants, both physical and moral. These ideas, however, have not touched the common run of people, who accept the theories taught them in childhood without thinking very deeply about them one way or another.

Having accepted such a theory of his nature, it follows that the thinking man would begin to wonder what he would be like if this spirit of his were taken away from him, or if it were wholly bad or wholly good. This last aspect has been drawn for us in the life of Christ, as given in the gospels and expounded in the epistles. English literature contains sketches of the others, drawn by two masters of the pen. It cannot but be interesting to study these side by side, and to contrast the picture drawn by Shakespeare with that drawn by R. L. Stevenson.

In his delineation of Caliban, Shakespeare has approached his subject from a constructive point of view. Born of a hag, herself hardly human, this individual has lived his life on a solitary isle, and has never seen the face of man until Prospero and Miranda are cast upon its shore. His shape uncouth, unkempt, with a discoloured, evil-smelling skin, he had but learnt night from day and where to provide himself with food, until Prospero came, taught him language and treated him kindly. To this he responds by trying to seduce Miranda, and when reminded of this, bursts into laughter with regret that it had not been accomplished. We have here, then, a being who possessed all the animal attributes of man: desire for food, with skill to obtain, desire to perpetuate his race, a form of love exemplified by being willing to show the good things of the isle to anyone who is kind to him. But he has none of the attributes by which man is marked off from other animals. He has no control over his sensual feelings, nor over his temper, nor over his desire to curse, even though he knows he will suffer pains for this, pains by which alone he can be kept in bounds. Nor has he any power of judgment. The drunken butler is more beautiful to him than the elderly duke. He worships as a God him who can fill his belly with wine, rather than him who tried to teach him. He has no glimmering of that inborn knowledge of good and bad which the Intuitive school say is the basis of morals. He feels not the slightest qualm when preparing treacherously to slay his master. It may be said that characteristics such as I have pointed out above may all be found in evil men of the present or any other day. It is, however, the combination of all in one individual that marks Caliban off from all others.

Robert Louis Stevenson shows us the character of Edward Hyde by an analytical rather than a synthetic process. Henry Jekyll is a man who appears to the world to be one who should be both admired and honoured. One who might be easily set up as an example for lesser natures to follow. "A large, well-made, smooth-faced man . . . with every mark of capacity and kindness," he is a physician high in the ranks of his profession, who has also a taste for chemistry, and is F.R.S. as well as LL.D. and D.C.L. A good entertainer, a judge of art, and a man of taste, he had also a comfortable fortune with which he might enjoy these things. To the world at large, then, no one seemed in a more enviable position. There was, however, another side to the picture. He had "a certain impatient gaiety of disposition, such as has made the happiness of many," but which he studiously hid from the world. He "laid aside restraint and plunged in shame" on the quiet, while

"he laboured in the eye of day, at the furtherance of knowledge or the relief of sorrow and suffering." From an appreciation of his own character, aided by his "studies which led wholly toward the mystic and the transcendental," he arrived at the idea "that man is not truly one, but truly two." By means of his chemical studies he was able to go a step further and to discover a drug which would dissociate one of these from himself. He thus became, for the time being, single in character. The part of him which was in this way dissociated was his better nature, so that when it had gone from him he was left a thing of evil without alloy. It is with this character that we are concerned. The rest of Stevenson's allegory does not affect us, how the evil side of his character gradually became more prominent, how the good became more easily dissociated, so that he turned evil against his will, and a greater dose of the drug was necessary to bring him back, and how the evil side of his nature burst out more strongly when it was once let loose after it had long been pent up. All this is intensely interesting and worthy of deep thought, but is beside the present subject.

To form a mental picture of a positively evil character is almost an intellectual impossibility. For this reason the character of Edward Hyde is rather suggested to our sensations than laid out before our eyes. Two acts of his, and two only, are described in the story, and each is one of callous, causeless brutality. For the rest we are dependent on the universal feeling of disgust which is the strongest impression left in the mind of everyone who saw him. Mr. Enfield, "the well-known man about town," the Scotch Sawbones, "about as emotional as a bagpipe," the Cavendish Square physician, and the dreary solicitor, all took a loathing to him at first sight. Even the silent and unscrupulous housekeeper in Soho is delighted when she knows he is in trouble. Dr. Lanyon described it as an "odd, subjective disturbance caused by his neighbourhood," and he believed the cause of this lay deep in the nature of man, and turned on some nobler hinge than the principle of hatred. Hyde himself realised that none could come near him without a visible misgiving of the flesh. The character is further developed in Dr. Jekyll's statement. Hyde is shown to be a man full of life and vigour, with an insatiable appetite for depraved pleasures of all sorts, with a "complete moral insensibility and insensate readiness to evil."

To the superficial observer, however, these two characters may appear much alike when allowances have been made for time and place. Both of them are quite devoid of any good quality. The worst of men have usually some goodness in them; even Bill Sykes had his code of honour, and Robespierre was fond of flowers. In Caliban and Mr. Hyde alone do we find no gleam of anything good. When we look deeper, however, we find the difference between the two is that Caliban is an absolutely negative character both as regards good and evil, while Hyde is negative as regards the good, yet positive on the side of evil. Shakespeare has built up an animal into a man, he has traced evolution as far as it can go, without the infusion of that something—soul or spirit—which converts the man into a human being. Stevenson has started with this human being, and torn from him every vestige of good and left the evil naked. The badness of Caliban is apparent only so long as he is looked upon as a human being. When he is considered as an animal of the "genus homo," he is no longer evil, any more than is any other wild animal. When he wishes to kill Prospero he does it to be rid of a hated master, but Hyde tramples on an unoffending child and batters to death an old man "in a transport of glee." Caliban's lust for Miranda is associated with his desire to people the island with little Calibans, while Hyde's midnight pleasures were pleasures and nothing more. Caliban's uncontrolled cursings were the snarlings of a vicious dog that is turned out of his kennel, while Hyde wrote blasphemies for no more reason than to torment Jekyll.

It is interesting to note that both these authors place their characters in distorted human shapes. Caliban is a hairy islander of primitive race. Hyde is a small man, giving always an impression of deformity, his hand "was lean, corded, knuckly, of a dusky pallor and thickly shaded with a swart growth of hair." This association of evil with hideousness is almost a part of human intelligence. We see it in the history of witches and the particular hatred with which Richard III. is looked upon.

That the theory entertained above is the key to Hyde's character there can be no doubt. This is clearly explained in Dr. Jekyll's statement. The same cannot be said of Caliban, Shakespeare draws the character and leaves us to understand it. And yet a study of the play leaves but little doubt that the above is the correct one. Caliban is undoubtedly a man. Though he is called "monster" by Stephano and Trinculo, he is neither an ape, "with forehead wondrous low," nor one of those monsters that the mediæval mind delighted to conjure up, and of which the courtiers speak in the play. He just fell short of being a human being. In the older phylogeny, he was Adam before God "breathed into his nostrils the breath of life." According to modern theories we can but speculate as to whether he preceded or followed *Pithecanthropus Erectus*.

T. B. LAYTON.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs.*

On Flea-bites.

THE fact that the tropical rat flea (*Pulex cheopis*) occurs in Guy's Hospital was recorded in the Gazette some time since (Vol. xxv., No. 591). Since then I have found that it is abundant on the rats which live under the pathological laboratory, and may be easily captured by letting tame white rats run loose about and under the floor. From specimens captured in this way, a good supply of *cheopis* has been bred in appropriate rat cages. On the wild rats which live under the surgical wards the predominant flea is *Ceratophyllus fasciatus*, the common flea on house rats is Western Europe, and not more than 5 per cent. of the fleas are *cheopis*. Les than 1 per cent. of the fleas in the pathological laboratory are *fasciatus*. That the relative abundance of the two species should differ so widely in two localities less than one hundred yards apart, suggests that the different families of rats lead comparatively secluded lives, and do not to any extent mix freely with one another—a matter of some importance in relation to the spread of epidemic disease among rats.

When the idea that plague is spread by infected rat fleas biting men, was first brought forward, considerable exception was taken to it in some quarters, on the ground that rat fleas will not bite men. This is true, or almost true, of some fleas such as *Ceratophyllus agyrtes*, a common flea on field rats in this country, as has recently been clearly shown by Chick and Martin (*Journal of Hygiene*, vol. xi. p. 133): The same holds for *Ctenopsylla musculi*, the customary mouse flea. But *Pulex cheopis* and *Ceratophyllus fasciatus* both bite men very readily: neither species has shown the slightest hesitation in sucking the blood of any of about a dozen individuals which I have been able to offer to them.

The first time a rat flea bites an ordinary person, no reaction is produced at all comparable to that which is commonly associated with flea-bites. Either at once or within a few minutes a slight erythema is visible, so slight that it is not possible to count accurately the number of fleas which have actually fed. This fades away completely within two or three hours, and at no time is there any œdema, or papule, nor any sensation of itching. If the same person is fed to the same species of flea after the lapse of two or three weeks, nothing much may happen; on the other hand, in some cases a very definite reaction is produced. There is the usual itching and discomfort, a wheal first appears, and later a hard papule which may persist for some time. If nothing happens at the second feeding, a marked reaction will probably be produced at the third or fourth attempt. The person, in short, becomes sensitive to flea-bites, and the facts suggest pretty obviously that the phenomenon is the same as that in which the guinea-pig may, by injection of horse serum, be sensitised to horse serum, so that it dies after quite a small dose, or a person's conjunctiva or skin is sensitised to tuberculin, by the fact that tubercle bacilli have previously been growing in his body. The familiar reaction to a flea-bite is then another example of anaphylaxis.

The Anaphylactic phenomenon is, within narrow limits, specific; that is, horse serum is poisonous only to the guinea-pig which has been injected with horse serum and not to a guinea-pig which has received egg white or tubercle bacilli. The same holds to some extent at least with flea-bites. Several of the subjects on whom the rat fleas at first produced no reaction were already thoroughly sensitised to human fleas (*Pulex irritans*), which in them produced very marked œdematous papules and intense itching, and it may be presumed with a fair degree of certainty that they had not previously experienced the bites of rat fleas.

The reaction, however, is not absolutely specific for each species of flea, as the following experiment shows: I took two subjects, C.L.B. and J.A.B., both of whom gave a distressingly large reaction to the bite of *irritans*, one of them (J.A.B.) also to the cat flea (*Pulex felis*). C.L.B. was fed to *cheopis*, J.A.B. to *fasciatus*. At the first biting neither of them gave the slightest reaction, but after five feedings, spread over about six weeks in all, both reacted definitely and each flea-bite was followed by an irritable papule, which was perceptible for at least a week. I then reversed the fleas, and fed *cheopis* to J.A.B. and *fasciatus* to C.L.B., both produced a good reaction, the only curious point being that the reaction was delayed in its onset for about 24 hours. Finally, the individual fleas of both sorts which had produced these last reactions were fed on a fresh subject, with the usual result that no reaction was produced by either of them.

Hence, a person sensitised to *cheopis* will react to *fasciatus*, and a person sensitised to *fasciatus* will react to *cheopis*. This suggests that what the person is sensitised to is not flea-ness but rat-ness, the rat fleas which were used being in all cases taken off tame rats in the breeding cages when wanted for experimentation. It is not improbable that when a flea bites he injects some proteid from his immediately preceding host, but it is difficult on this hypothesis to understand how persons become sensitised to human fleas since we should have to hypothecate the possibility of man being sensitised to man-ness. The truth probably is that these two species of rat flea are biologically very similar, and that both are quite different from the human flea, just as the precipitin test may not, in its crude form, readily differentiate man-proteid from monkey-proteid, though both are sharply separated from *e.g.* hen-proteid. This biological similarity is perhaps correlated with the fact that both species are naturally parasitic on the same rat and raises interesting considerations with regard to the reasons why most fleas have relatively definite hosts. Entomologically *cheopis* is closely allied to *irritans;* the other species belong to quite separate groups.

Some people—myself among the number—are naturally immune to flea-bites of all kinds, though man-biting fleas will readily feed upon them. An individual may also be very sensitive to the bites of human fleas, but remain immune to the bites of rat fleas after many onslaughts. In the end an acquired immunity seems to be fairly common among people who are freely and repeatedly bitten. It would be of great interest to see if this immunity is a general flea-immunity or whether it is altogether or partially specific for the human flea.

A. E. B.

Appointments.

The following appointments have been made by the Treasurer upon the recommendation of a Staff Meeting:—

Senior Demonstrator of Pharmacology.—Dr. M. S. Pembrey.

Demonstrator in Physiology.—Mr. H. Gardiner.

Lecturer in Dental Anatomy and Physiology.—Mr. M. F. Hopson.

Demonstrator in Practical Dental Metallurgy.—Mr. F. J. Pearce.

Anæsthetists to the Hospital.—Messrs. L. Bromley, J. G. Saner, H. Gardiner.

Ophthalmic House Surgeon.—Mr. V. Glendining.

Obstetric Resident.—Mr. W. Chaning-Pearce.

Civil.

H. G. B. Blackman, M.R.C.S., L.R.C.P., has been appointed Casualty Officer to the Norwich and Norfolk County Hospital.

F. A. Bainbridge, M.D., D.P.H. Camb., has been appointed Professor of Physiology to Durham University.

S. Child, M.B., B.C. Cantab., appointed Medical Officer of Health, Horsham Rural District.

B. Wallis, M.R.C.S., L.R.C.P., appointed Certifying Factory Surgeon, Helston District, Cornwall.

G. A. Wright, F.R.C.S., appointed Honorary Consulting Surgeon, Manchester Royal Infirmary.

Naval and Military.

Staff-Surgeon G. E. Duncan to the *Crescent*, and to the *Pioneer* on re-commissioning.

Staff-Surgeon E. S. Tuck to the *Illustrious* on re-commissioning.

Surgeon H. B. German to the *New Zealand*, additional on transfer of Flag.

Surgeon P. F. Minett to the *Vivid*, additional for disposal.

Surgeon A. T. Rivers to *King Edward VII.* on re-commissioning.

Lieut.-Colonel L. F. Childe, M.D., I.M.S., to be Senior Medical Officer J.J. Hospital, Bombay, continuing to act as President, Grant Medical College, during the absence of Lieut.- Colonel C. H. L. Meyer.

Lieut.-Colonel C. H. L. Meyer, M.D., B.S., to be Principal, Grant Medical College, Bombay.

Captain G. Brook Churchill, R.A.M.C., has been permitted to extend his service in India for a further period of one year, by H. E., the C. in C.

Captain J. H. Horton, D.S.O., I.M.S., to act as Second-class Civil Surgeon, Ahmednagar.

Lieutenant V. P. Hutchinson, R.A.M.C., is under orders for service in India with the Northern Army.

Lieutenant H. F. Joynt, R.A.M.C., is under orders for a tour of service in South Africa.

Territorial Force.

1st Home Counties Field Ambulance, R.A.M.C., Lieut. A. T. Falwasser to be Captain, dated June 12th, 1911.

Pass List.

University of London.

M.D. EXAMINATION, July, 1911.

Branch IV.—Midwifery and Diseases of Women.

Munden, W. P. H., B.S.

Second Examination for Medical Degrees, July, 1911.

Part II.

Broome, F. C. S. | Petley, C. E.
Liebson, A. S. | *Tanner, W.E.
Whitworth, H. P.

*Distinguished in Pharmacology.

Royal College of Physicians.

Examination for the Membership.

Carlyll, H. B., B.C., M.D. | Poulton, E. P., M.B., B.C.

University of Durham.

At the Convocation holden on Saturday, 22nd July, 1911, the following degrees were conferred:—

Doctor of Medicine for Practitioners of 15 Years' Standing.

Philps, F. G. M., M.R.C.S., L.R.C.P.

M.B.

Owen, J. H.

B.S.

Owen, J. H.

First Examination for Degree of M.B., July, 1911.

The following candidates have satisfied the Examiners:—

(3) Elementary Anatomy and Biology.

Braine, J. F. Carter. | Cuff, C. C. H.
Richards, D. O.

Second Examination for Degree of M.B.

The following Candidates have satisfied the Examiners:—

Elliott, H. H. | Peregrine, H. L. P.
Jones, D. R. | Savage, P.
Smith, C. R.

Society of Apothecaries.

The following have passed in:—

Surgery.

Watson, W. H. (Sections I. & II.).
Wingent, R. M. (Section I.).

Midwifery.

Reckitt, C. E.

First Conjoint Examination, July, 1911.

Part I.—CHEMISTRY.
Part II.—PHYSICS.

†Bates, K. L.	†Moore, L. W.
†Howe, G. H.	†Pearce, D. G.
*Long, G. S. B.	Pearmund, A. S. W.

*Passed in Part I. only.
†Passed in Part II. only.

Part III.—ELEMENTARY BIOLOGY.

Millett, H.	Neft, R.

Pratt, W. H. A.

Final Conjoint Examination, July, 1911.

MEDICINE AND SURGERY.

*Davis, H. H.	*Monaghan, P. J.
*Glendining, V.	*Verver, B. T.
Hopkins, H. L.	*Wall, M. C.
*Lloyd, F. G.	*Williams, O. E.

SURGERY AND MIDWIFERY.
Parmiter, B. R.

MEDICINE ONLY.

*Billing, E.	Langdon, W. M.
*Campain, J. H.	Lloyd, D. C.
Davies, D. A.	Munden, M. M.
Daw, H.	Preston, G. L.
*Griffiths, H. L. S.	Smith, P.
Heaton, R.	Stewart, J. L.
Jap-ah-Chit.	Vernon-Taylor, A. D.

SURGERY ONLY.

*Blackman, H. G. B.	Lowe, G. C.
*Blake, G. A.	McDermott, B.
Digby, W. E. S.	*Marshall, G.

*Foster-Smith, G. T.

MIDWIFERY ONLY.

Bennett, R. S. de C.	Patey, P. E. H.
Jepson, A. C.	Roberts, T. E.
Lacey, W. S.	*Schlesinger, E. G.
Peers, E. C.	Thavara, M. C.

Worster-Drought, C.

* Denotes completion of examination.

Licence in Dental Surgery.

PRELIMINARY SCIENCE EXAMINATION, JULY, 1911.

Part I.—CHEMISTRY.	Part II.—PHYSICS.
*Garrard, J. L.	Hammond-Williams, C. W.
*Gordon, W. H. C.	†Isaacs, B.

*Chemistry only. †Physics only.

Entrance Examination for Indian Medical Service.

Plumptre, C. M. (6th)	Penny, E. A. (8th)

Raymond Paul Middleton Roberts,

AGE 27.

WE know full well that there are numbers of Guy's men who will read with very great sorrow of the unexpected death of R. P. M. Roberts, on the China Station.

Such Admiralty cablegrams are always cruel in their sudden brevity. We get so absorbed with our own work at home in England, that though our life, in and around Guy's Hospital, may be useful, it may also be very narrow. And then—there comes a message round two continents with the horrid relentless ticking of a telegraphic indicator in that Government office in Whitehall which flies the anchor flag. And then—we awake to know our littleness.

Roberts came to Guy's, from Cambridge, in October, 1905, having passed his "Second M.B." He worked on the medical side under Dr. Taylor and Dr. Pitt. He was a "Symonds Dresser" for six months, and afterwards Clinical Assistant to Sir Cooper Perry. He qualified with the diplomas of the Conjoint London Colleges in October, 1908, and, without waiting to take his Cambridge degrees, entered the Navy Medical Service. That was no surprise to any of those who knew him, for he had many interests outside his profession, being specially attracted by engineering and machinery. His motor-cycle he tended as a mother would nurse a child.

It seems really only yesterday that he was having breakfast in the College for the last time, just before going out to the China Station, having been appointed Surgeon to a gunboat with a roving commission on the Yang-tse-Kiang. That was in January, 1910—and he talked, during breakfast, about the relative merits of photographic developers, of the advantages possessed by a new camera which he had bought, of roll film and card film, and of all the human cussedness that dwells in an internal combustion engine. We know that he went out to China thoroughly happy with his life in the Senior Service, and the future possibilities of professional work.

Fuller details of his death are not yet to hand. We have only heard from the Admiralty that there was a mountain expedition—an accident—an injury to himself, from which he did not recover.

Happy in our remembrance of his life among us at Guy's, we are also happy in being quite certain that wherever he went, on sea or on shore, he left men and women the happier for his presence, for his cheery friendship, for his *disregard of self*. Still more are we happy in having no fear for the name and fame of our hospital while such as he, wandering, work in the world. Are not such men the very Salt of the Earth? They seem to mould their lives according to the rules of Robert Louis Stevenson:—

> "To be honest, to be kind—to earn a little and to spend a little less, to make, upon the whole, those around him happier for his company, to renounce when that shall be necessary and not be embittered, to keep a few friends, but these without capitulation. Above all, on the same grim condition, to keep friends with himself—*here* is a task for all that a man has of fortitude and delicacy."

Lateral Sinus Thrombosis.

CLINICAL LECTURE BY Mr. W. M. MOLLISON.

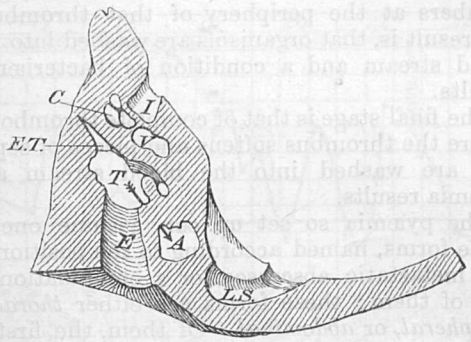
Gentlemen,—The title of this lecture should, perhaps, rather have been Inflammatory Disease of the Lateral Sinus, as there are conditions other than actual thrombosis which have to be considered in dealing with the sinus as affected by suppurative disease in the middle ear. Contrary to the logical method of a "clinical" lecture, I propose to consider the pathology of the disease of the sinus, and afterwards quote cases to support the conclusions arrived at.

Among the intracranial complications following on suppuration in the middle ear, affection of the lateral sinus takes a prominent place. Dr. Pitt, investigating 9,000 consecutive post-mortem examinations at this hospital, found that sinus disease accounted for 22 deaths, abscess in the brain for 18, and meningitis for 10. Grüber, among a series of cases of ear disease, found higher figures for sinus disease—84 cases of sinus disease, 45 of brain abscess, and 71 of meningitis. Without further discussion of figures, it may be stated that the order of frequency of intracranial complications is—

1. Pachymeningitis.
2. Lateral sinus disease.
3. Abscess in the brain.

The reason for the frequency of involvement of the lateral sinus is to be sought in the anatomy of the temporal bone. Here are some specimens, and you will see that the sinus lies in its sulcus on the deep aspect of the bone; the convexity of the curve of this sulcus projects forward, and is in some instances only a very short distance from the antrum. It is to be noticed also that the right sinus lies further forward than the left. An investigation of a number of bones showed that in 77 per cent. the right was further forward than the left, in only 13 per cent. the left more forward than the right, and in 10 per cent. the two were similar.

In suppuration of the middle ear the antrum of the mastoid process becomes involved in the vast majority of cases; from the antrum inflammation can extend in three directions; upwards towards the middle fossa of the skull, from which it is separated by a very thin plate of bone, backwards towards the posterior fossa of the skull and the lateral sinus, and inwards towards the internal ear—the labyrinth. Bearing in mind the position of the lateral sinus, it is obvious that infection can easily reach it through the bone lying between the sulcus and the antrum. The following diagram will make clear the relative position of the sinus and antrum. It represents the upper piece of the temporal after that bone had been divided by a horizontal cut passing just below the roof of the external auditory meatus:—



I. Internal Auditory Meatus.
C. Cochlea.
V. Vestibule.
T. Tympanum.
A. Antrum.
E. External Auditory Meatus.
L.S. Lateral Sinns.
E.T. Eustachian Tube.

The arrow lies in the aditus of the Antrum.

The spread of inflammation backwards is that which must now be considered. Inflammation in the antrum can lead to inflammation in the bone lying posterior to it, and that gives rise to an osteomyelitis; as a result, the bone may be actually destroyed as far back as the sulcus in which lies the sinus, and when operation is performed and the mastoid process opened, the dura may be found exposed without need arising to remove any bone between antrum and sinus. In other cases the bone may still be to the naked eye intact, though the inflammation has spread to the sinus. Here infection has been carried by the small vessels permeating the bone.

Thus, then, the dura mater forming the wall of the sinus becomes involved in the inflammatory process and granulations appear; an external pachymeningitis. These granulations may be followed by the formation of an abscess lying in the sulcus of the lateral sinus, and even compressing the sinus. The abscess in this position is called a *perisinuous abscess*. While this abscess is forming on the outer wall of the sinus, though the dura mater is highly resistant to inflammatory attack, the effects of the inflammation are felt on the inner wall of

the sinus—an *endophlebitis*. This affection of the inner wall sets up a condition of toxæmia. Follow the process a step further. This endophlebitis, unless its cause, the perisinuous abscess, is removed, will give rise to a certain amount of adherence of corpuscles, to a thrombosis confined only to the wall of the sinus—the so-called *parietal thrombosis*. Now the infecting organisms in a thrombus are found in largest numbers at the periphery of that thrombus; the result is, that organisms are washed into the blood stream and a condition of bacteriæmia results.

The final stage is that of complete thrombosis, where the thrombus softens and pieces of septic clot are washed into the blood stream and pyæmia results.

The pyæmia so set up can assume one of three forms, named according to the position of the metastatic abscesses, or a combination of any of them; these forms are either *thoracic*, *peripheral*, or *abdominal*. Of them, the first is far the most common, and gives the best prognosis; the second is that form where abscesses form in muscles, subcutaneous tissues, joints, and so on; and the third where abscesses form in various abdominal organs. In this form the prognosis is worst.

To summarise in tabular form the results of inflammation of lateral sinus:—

I. External pachymeningitis; perisinuous abscess; endophlebitis; toxæmia.
II. Parietal thrombosis; bacteriæmia.
III. Thrombosis; pyæmia.
  a. Thoracic; abscesses in lung; empyæma.
  b. Peripheral.
  c. Abdominal.

The following cases will serve to illustrate these various stages:—

1. A Case of Perisinuous Abscess.

F. W., aged 9 years, was admitted to the Evelina Hospital on June 27th, 1910, suffering from pain in the right ear and tenderness behind the ear. The pain had been present four days, and he had been sick the first two of these four days. There was a discharge of pus from the ear, but the duration of this was not known. The pinna was displaced slightly forwards and downwards, and there was some œdema and tenderness over the mastoid process. The throat was inflamed. Temperature 102° F., pulse 110.

On this, the day of admission, patient did not vomit. On examination of the ear, foul pus was found, and a perforation was seen in the posterior inferior part of the membrane, the superior posterior part being red. The day after admission, the 28th, patient vomited three times.

An operation was performed. On opening the antrum, pus was found and seen to be pulsating; disease of the bone was found to extend backwards. A radical mastoid operation was completed, and the disease of the bone traced back towards the sinus, and an abscess was found round the sinus compressing it. On releasing the pus the sinus filled again; the sinus wall was found rough and vascular over a small area; bone was removed all round this area to expose healthy dura mater. The wound was sewn up, a drain being inserted in the lower part. Recovery was uneventful as far as the wound was concerned. The next day, the 29th, the boy was less drowsy. On the 30th he was jaundiced and rather restless, and continued in this condition, with slight rise of temperature, for a few days. These symptoms were doubtless due to a *toxæmia*. Apart from this the boy progressed well, and was recovered completely in seven weeks.

2. A Case of Parietal Thrombosis with Bacteria in the Blood Stream.

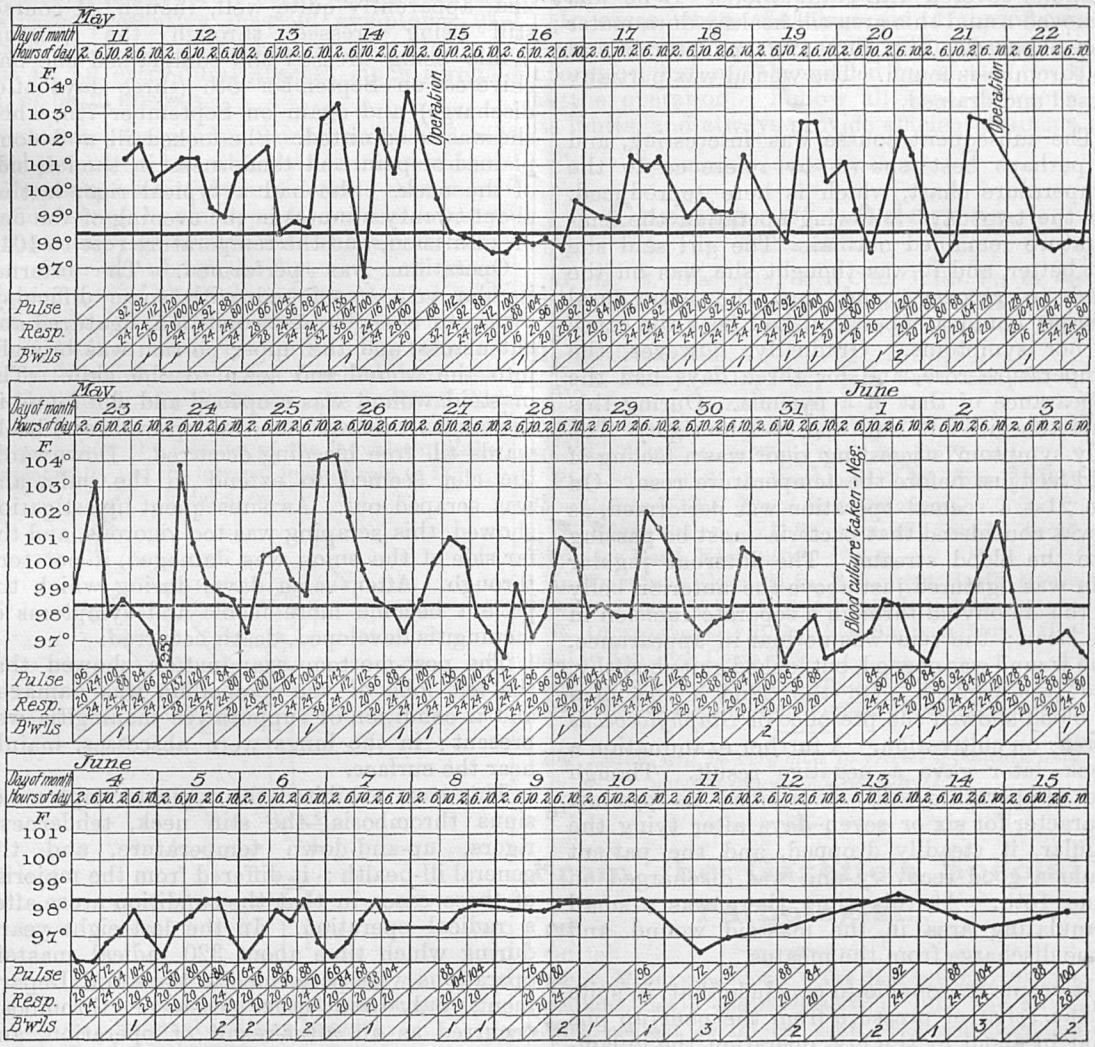
The case taken to illustrate this stage of the disease is that of a girl under the care of Sir Cooper Perry. Her case shows the advisability of operating on the mastoid process in the presence of quite trifling signs when suppurative disease of the middle ear is known to exist:—

E. M., 13, was admitted on May 11th of this year, complaining of headache, abdominal pain and vomiting. Temperature 101°, pulse 92. There was a history of deafness for twelve months and otorrhœa from the right ear for five months. Tonsils and adenoids were removed in the Throat Department three months previously, and lotion supplied for syringing the ears. Under this treatment the otorrhœa became less, and the child ceased attending the hospital.

Three weeks before admission, pains in the right side of head and left side of abdomen and in the back were complained of; these continued till a few days before admission, and she was kept from school. For a fortnight before admission she vomited after food, in spite of a diet of milk and eggs. A week before admission the otorrhœa, which had gradually lessened, ceased.

She attended the Aural Out-patient Department on the day of admission. She was pale,

and complained of a headache and some abdominal pain; she was rather listless, and it was thought that the spleen was palpable. On examination of the ear, pus was found in the right meatus and a perforation was seen in the tympanic membrane; the left ear was normal. There was no tenderness over the upper part of the mastoid process, over Macewen's triangle,



and no thickening of the tissues over the process. Only on pressing upwards at the tip of the process was any tenderness elicited.

She was admitted with a tentative diagnosis of typhoid fever or some complication of the ear disease. The day after admission, May 12th, the temperature was a little lower, but the girl complained of pain about the right ear. On the 13th the temperature, after a rise to 101·5° at 6 a.m., fell to normal, and the girl seemed much better. At this stage there did not appear to be much amiss with the patient: however, at 10 that evening the temperature rose to 103°, and by 10 the next morning was below normal. The child had no rigor, and was feeling well. On the next day, the 14th, the temperature rose to 103·8°; even now no tenderness was found over the mastoid process nor behind it, but only on pressure upwards at the apex.

Operation was decided upon. The incision through the tissues showed no thickening or œdema, and on stripping off periosteum the bone was practically normal, though perhaps a

little more vascular than usual. The bone was then opened, and at the first touch with the gouge pus *welled out*; there was much destruction of bone, and cholesteatoma was found. A radical operation was completed. The disease in the bone was traced back, and found to lead to the lateral sinus; on the outer wall of the sinus was an area about 1 cm in diameter covered with granulations. Bone was removed round this area till healthy dura mater was exposed. The sinus was punctured and no thrombosis found. The wound was partially closed and drained.

The subsequent course was interesting, and is perhaps best shown by reference to the temperature chart, which is here reproduced. On the two days following operation the temperature remained normal. The girl said she felt better, and it was thought she was on the road to recovery, and that the extra-dural abscess found at operation had been the cause of her symptoms. Gradually, however, the temperature rose, and for three days had the appearance of that of a pyæmia. During this time the girl felt well and had no rigor. The only symptom suggesting rigor was a feeling of cold feet just before the temperature rose. On the 21st a second operation was performed, as it was considered that bacteria must be passing into the blood stream. The internal jugular vein was ligatured just above the anterior belly of the omohyoid through a separate incision in the neck; the vein was normal in appearance. The wound was opened, but looked quite healthy, and was packed. On the 22nd a specimen of blood showed the presence of *Staphylococcus aureus* on cultivation. A further examination a week later gave a negative result. Though the temperature still maintained its pyæmic character for six or seven days after tying the jugular, it steadily dropped, and the patient made a good recovery and was discharged on June 15th. At this time there was a small granulating area in the mastoid wound and some discharge from the meatus.

It seems reasonable to conclude that, in spite of the relief of pressure from the pent-up pus brought about by the first operation, the inflammatory process caused endophlebitis and the formation of a small clot in the sinus enough to discharge bacteria into the blood stream. Ligature of the internal jugular at the second operation prevented this discharge to a great extent, and gave the patient time to increase her resistance to the organism, and so to heal the endophlebitis.

3. TO ILLUSTRATE THE CONDITION OF THROMBOSIS WITH PYÆMIA, THE FOLLOWING CASE IS TAKEN:—

A. B., 19, was admitted into Ruth ward in August, 1910, and a radical mastoid operation performed on August 19th. At the operation the lateral sinus wall was exposed and appeared healthy. She was discharged on September 2nd, apparently quite well, though, of course, still being dressed through the meatus. While being dressed she complained she had shivered on September 5th (three days after discharge), and again on September 7th, when she was re-admitted. She looked ill and complained of pain and tenderness in the left side of the neck. She had a typical rigor lasting about twenty minutes in the evening of the day of admission, and the temperature rose to 104°.

Operation was performed. The internal jugular vein was found with some difficulty, owing to its collapsed condition, ligatured and cut across, and the upper portion was brought into the wound and sewn to the skin. The mastoid wound was reopened and clot found in the sinus; this was removed upwards and backwards till free bleeding occurred. Downwards the clot seemed to extend to the bulb, and was scraped out. As subsequent investigation showed, this scraping was too vigorous, and the far side of the sinus was damaged, if not torn through. After some days, during which the patient became more feeble and symptoms of meningitis developed, death occurred.

The post-mortem examination showed that the left lobe of the cerebellum was damaged and a condition of suppurative meningitis was present; in the lungs were abscesses, mainly near the surface.

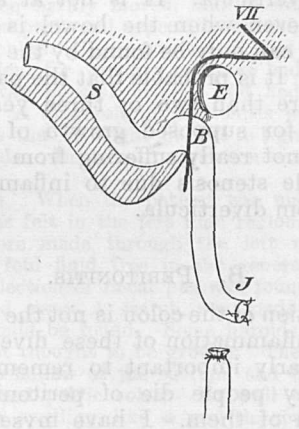
This case exhibited the typical symptoms of sinus thrombosis—the stiff neck, tenderness, rigors, up-and-down temperature, and the general ill-health; it differed from the majority of these cases in that the condition arose after a radical operation. In the last eight years, during which time about 320 radical mastoid operations were performed in the Aural Department, only one other case of thrombosis occurred as an after-result of operation, and that one was due to the extreme proximity of the sinus to the external meatus—only $\frac{3}{16}$ inch separated them—making damage of the sinus almost unavoidable. The post-mortem findings in the case show, too, the most frequent form of the pyæmia—the thoracic.

These three cases are examples of the three stages of the one process—inflammatory disease of the lateral sinus. In all of them the disease

arose in the course of a chronic suppurative otitis media, though it is not always chronic otitis which leads to thrombosis; a fair proportion of cases arise in the course of an acute otitis media. It has been stated that if, in acute otitis media, the temperature remains high in spite of a free exit for the pus, sinus thrombosis is to be suspected. As to cases of chronic otitis media, it should be borne in mind that of those cases presenting mastoid symptoms, 94 per cent. have some intracranial complication —that is, an extra-dural abscess, sinus thrombosis, or brain abscess.

Treatment.—Only a few words are needed on this subject, as it has already been touched on in the cases quoted. Having decided that there is thrombosis of the sinus, perform a preliminary operation and ligature the internal jugular vein in the neck, cut above the ligature, and bring the upper end of the vein into the wound, and sew it in position to the skin. By this means the vein itself is made into a drainage tube for those parts which cannot be reached from the mastoid wound; for instance, the bulb of the

Diagram to show the relation of the lateral sinus, the jugular bulb, and the internal jugular vein to the facial nerve.



VII. Facial Nerve in its course through the Temporal Bone.
E. External Auditory Meatus.
S. Lateral Sinus.
B. Jugular Bulb.
J. Jugular Vein (cut and sewn to skin wound).

sinus is crossed superficially by the facial nerve in its vertical course through the Fallopian aqueduct, and is very difficult to expose without much danger to the nerve. After the vein has been dealt with, open the mastoid process through the usual incision, and perform a radical operation. Remove bone in a backward direction to expose thoroughly the lateral sinus, open the sinus, and gently remove the clot till free bleeding occurs; a plug will easily control the hæmorrhage. Allow the wound to remain open for a time at least. The further treatment is directed along general surgical lines.

In cases where the diagnosis of thrombosis is not certain, perform the radical mastoid operation first, and be guided by what is found at the operation. Follow all bone disease to its limits, and always provide efficient drainage.

Change of Address.

H. G. B. Blackman, M.R.C.S., L.R.C.P., to the Norwich and Norfolk County Hospital, Norwich.

C. Holme-Barnett, from Guy's Hospital to Alma House, Cheltenham.

E. A. Penny, M.B., B.S., from Guy's Hospital to The Hermitage, Marlborough.

O. E. Williams, M.R.C.S., L.R.C.P., from Guy's Hospital to Tre Morfa, Tal y Cafn, North Wales.

Fleet-Surgeon W. J. Bearblock, R.N., from H.M.S. *Ramillies* to H.M.S. *Royal Oak*, Devonport.

H. Edgar Collett, L.D.S., from 40, Seaside, to 15, Gildredge Road, Eastbourne.

L. Thompson Dean, M.B., B.C., from Heath House, Nocton, Lincs., to The Terrace, Spilsby, Lincs.

R. Orozco-Casorla, B.Sc., L.D.S., from Guy's Hospital to San José, Costa Rica.

B. T. Verver, L.R.C.P. Lond., M.R.C.S. Eng., from Guy's Hospital to Ingram House, Stockwell Road, S.W.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

From the Gazette's Special Pathologist.

J. E., Middlesborough.—The fluid is faintly alkaline to litmus, has a specific gravity of 1017, and an albumen content of 1·5 per cent. The centrifugalised deposit is moderate in amount, and consists chiefly of blood with a few endothelial cells and a moderate number of leucocytes, not, however, sufficient to constitute a trace of pus. A differential count of the leucocytes shows 24 per cent. polynuclear and 76 per cent. mononuclear, the majority of the former being eosinophilous. Some fibrinous blood clot is present, but cells or fragments suspicious of new growth formation are not found.

PATHOLOGIST.

Diverticulitis of the Colon.

By R. P. ROWLANDS.

For some years cases of localised inflammation of the colon have been published, especially in America, but to Dr. Maxwell Telling* belongs the credit of drawing attention to the chief cause, the comparative frequency, and various consequences of this condition. Since his paper was published a great many more cases have been reported, and above all both surgeons and pathologists, being more alive to the condition, are able to identify it when they come across it. It may affect any part of the colon, but the sigmoid is the part involved in nearly all cases. I believe that the disease is quite common.

A. Chronic or Subacute Obstruction of the Colon.

I published two cases in the *Lancet*.† These were instances of inflammation with chronic obstruction of the colon. One of these patients was a woman aged 60, whose colon from the middle of the pelvis to the splenic flexure was converted into a rigid and stenosed tube. She was too ill for the diseased part to be resected. I therefore made an anastomosis between the ileum and the front wall of the rectum about five inches from the anus. Her life was saved, but her symptoms have not been entirely relieved. The second was a man aged 49, who had a mass in the left iliac region associated with rigors, tenesmus and chronic obstruction. I resected the diseased sigmoid, and made an end-to-end anastomosis. The man is now quite well, nearly two years afterwards. The specimen is in the Museum at Guy's, and shows very well the presence of diverticula along the mesenteric border, with perforation into the mesentery, which is occupied by a mass of inflamed tissue and necrotic areas. The mass narrows the lumen of the bowel, projecting into the latter, covered by healthy mucous membrane. The outer coats of the bowel are also infiltrated by contracting fibrous tissue. An elderly medical man recently came to see me, suffering from the same condition with a swelling in the left iliac region for the last 25 years. With careful dieting and the use of enemata and aperients, he is able to keep himself going. All these patients were life-long sufferers from constipation. The formation of diverticula in the colon seems to be chiefly due to long-continued constipation associated with failure of the muscularity of the intestinal wall. It is, therefore, a condition which is not often seen before middle age, and Telling points out that "the average age of those in which the diverticula caused clinical symptoms was 55 years" (47 cases). It is, of course, admitted that the presence of diverticula is not the only cause of inflammatory stenosis of the large intestine. Tuberculous infiltration, especially of the cæcum and ascending colon, may closely simulate malignant disease. Gonorrhœal, septic, and tuberculous tubular stenosis of the rectum are well-known conditions. The spread of inflammation from the female pelvic organs may give rise to true stenosis of the sigmoid or pelvic colon. It is very important to remember that a great many cases of local inflammation of the colon, with or without obstruction, have in the past been considered to be due to malignant disease. It is therefore of vital importance to make microscopical examinations of supposed growths of the colon and also to examine all specimens removed very carefully for diverticula. It is not at all easy to find these even when the bowel is laid open. Often they can only be found by the careful use of a probe. It is probable that the patients who survive more than two or three years after a colostomy for supposed growth of the pelvic colon are not really suffering from cancer, but from simple stenosis due to inflammation extending from diverticula.

B. Peritonitis.

Obstruction of the colon is not the commonest result of inflammation of these diverticula. It is particularly important to remember that a great many people die of peritonitis due to perforation of them. I have myself operated upon at least three patients suffering from peritonitis due to this cause. Notes of two of these cases are appended. It is interesting that in both of these I strongly suspected the cause of the peritonitis before the operations, which took place within twenty-four hours of each other.

The remaining patient, an elderly woman, was operated upon about three years ago for late diffuse peritonitis. Two of my three patients died.

* The *Lancet*, March 21st, p. 843, and 28th, p. 928, 1908.
† The *Lancet*, April 30th, 1910.

Perforated Diverticulum of Pelvic Colon. General Peritonitis.

Case 1.—Mrs. B., aged 62. Publican's wife. Stout and (?) alcoholic. She has a congested face from mitral disease. For many years she has been suffering from constipation, sometimes going as long as 10 days without having the bowels open. For the last year this has been getting worse, and the patient has been having difficulty with her bowels, and she had one bad attack of pain about three months ago, which was associated with much tenesmus and watery motions. She also passed a good deal of mucus and a few streaks of blood. She called her doctor to see her then and she gradually improved, but she has never been quite well since, and the bowels have rarely acted naturally. She often has a great deal of straining, and passes mucus and a great deal of flatus, but no formed motion. She has suffered a great deal of pain at times. On February 17th, 1911, she was not feeling very well, and went to bed early and took a large dose of castor oil. About 3 a.m. on the morning of the 18th she woke up in great pain and told her husband that she thought she was bursting, and her doctor was called to see her. He found her very ill. The abdomen was distended. She was in great pain, which was of a colicky nature. Efforts were made to get the bowels open. Three enemata were given and a soft rectal tube was gently passed without effect. The doctor thought he could feel a lump in Douglas' pouch, and he made a diagnosis of intestinal obstruction probably due to a growth in the sigmoid colon. When I saw her at 7 p.m. on the 18th she was groaning with pain. The abdomen was greatly distended. Her pulse was 120 and weak. The abdomen hardly moved, and it was very tender in the lower part, and especially on the left side just above the pubes. The patient said that her pain was in micturition, for which a catheter had been passed, drawing away natural urine. She had been sick a good deal. A diagnosis of peritonitis was made, with a suggestion that it might be due to sigmoiditis arising in diverticula. Immediate operation was advised and performed.

Operation. When the patient was under A.C.E., a swelling was felt in the left iliac region. An incision was therefore made through the left rectus muscle. There was foul fluid free in the general peritoneum. A large collection of fæcal pus was found in the pelvis and mopped away. A search was made for a growth, but none could be found. Some fibroids in the uterus were at first thought to be growth. There was a thick mass in tho hollow of the sacrum, and this was found to be inflamed pelvic colon. Its wall was thickened. No definite swelling like a growth could be found, and on bringing the loop towards the wound a perforation was found at the root of one of the appendices epiploicæ. The perforation had occurred on the neck of a diverticulum which had projected in the appendix epiploica. The mesentery was thick, and the appendices epiploicæ were very numerous and large, and it was thought that several of them contained saculi. There was peritonitis extending upwards towards the right flank. The cæcum was normal. The tubes were normal. The perforation was sutured, and the appendices epiploicæ were sewn over it. A large tube containing a wick of gauze was placed at the lower angle of the wound and extended into the pelvis, and two wicks of gauze were passed, one upwards and to the right, and the other upwards and to the left. The patient was infused 2½ pints into the axillæ directly she was returned to bed, the operation lasting about half an hour. She vomited a fair amount during the next day, and was weak. Pituitary extract was injected. The pulse was 120 on the evening of the 19th. The bowels acted on the third day, but the patient died on the fourth day.

? Perforation of Colic Diverticulum. Local Peritonitis in Left Flank. Secondary Spreading Peritonitis.

Case 2.—Mrs. S., aged 51. The patient is an abstemious, rather stout woman, who has not yet reached the menopause. She has had very little trouble with the bowels, but she often takes a little liquorice powder. There has been no blood or slime. She has been very well until about six months ago, when she had a sudden attack of abdominal pain associated with vomiting. The symptoms passed off after a rest in bed for twenty-four hours, and the patient was able to go out to dinner within forty-eight hours of the onset of the attack. The attack was similar to the present one, but not so severe, and she was not discoloured. The period came on on February 12th. On the evening of the 13th the patient took two lime-juices. At 3 a.m. on the 14th she woke up with pain which gradually got worse. The attack persisted throughout the 14th, and that evening she took some castor oil, which acted well on the 15th. Her temperature was 101 on the 14th. The pain came on in the epigastrium, and towards the evening of the 14th it had settled down in the left flank. It was of a colicky nature and very severe. The patient was very sick on the 14th, but she has not been sick since. She has been kept on a low diet, taking only liquids. The bowels were last opened on the 16th, after a dose of castor oil and an enema. The result was poor. She has not had any enema or opening medicine since. On the afternoon of the 16th she was a good deal better, but in the evening her temperature went up to 103, and her pulse, which had previously been about 88, was over 100. Towards the evening she had a great deal of pain, and had morphia (gr. 1/6). She then slept until about 3 a.m. on the 17th. The doctor was called to see her. She was in great pain, and he gave her morphia (gr. 1/12). Since then she has had no more morphia. The pulse got quicker and was about 120 when a consulting physician saw her in the afternoon of the 17th. Meanwhile, the patient had become (?) jaundiced. No abnormality could be discovered on rectal or pelvic examination. The period was continuing naturally. The urine was normal. There were no urinary symptoms. There was distinct tenderness and rigidity in the left flank, and the abdomen was more distended than on the 16th. The temperature was 101. Pancreatitis was suggested, possibly due to the presence of a stone in the common bile duct, with suppuration about the lesser sac of the peritoneum, and operation advised. I saw her at 9.30 p.m. on the 17th. She was then rather pinched about the face, her cheeks were a little flushed, the tongue was covered with a white fur, and there was a peculiar odour about the breath. The patient complained of colicky pain. The abdomen was considerably distended and mottled red from the application of heat. It did not move much unless the patient was asked to take a deep breath. There was not much rigidity,

and this was most marked in the left flank just below the ribs, where also the tenderness was most marked, but there was very little tenderness in the left loin, and no fulness. The pulse was then 110, weak, and intermitting occasionally. The temperature was 100·4°. Pigmentation could not be seen with the artificial light, and it was said not to have been very marked, and was, therefore, disregarded, especially as there was no tenderness in the neighbourhood of the epigastrium or gall-bladder. There was some dulness in the left flank, but none in the right. I suggested a diagnosis of peritonitis in the left flank with gradual spreading forwards. The most likely cause seemed to be some disease of the colon, probably the bursting of a pathological diverticulum. The absence of a history of previous constipation or diarrhœa with blood or slime seemed to exclude a growth or sigmoiditis. The absence of a previous history of indigestion put out ruptured gastric ulcer to the left of the spine. The jaundice, if any, was not marked, nor early enough for a stone impacted in the common bile duct, but it was thought possible that there might be a stone in the pancreatic duct which had only recently given rise to incomplete obstruction of the common bile duct. A rupture of a diverticulum of the colon, with localised peritonitis now becoming general, was the diagnosis made, especially as there were no fatty or offensive stools and no glycosuria.

Operation (on February 17th, 1911). Morphia (gr. $\frac{1}{4}$) was given, followed by ether, and then the abdomen was opened through the left linea semilunaris in its upper two thirds. Free fluid at once escaped, and lymph was seen upon distended coils of small intestine. The fluid was slightly turbid serum. A gauze roll was used as a pack while the left loin was explored, and then a gush of sero-pus escaped from the flank just below the spleen. When this was mopped away thick pus was seen coming upwards from a perforation in the front wall of an abscess which filled the hollow between the descending colon and the parietal peritoneum and extended downwards nearly as far as the pelvic brim. This pus was mopped away, and the colon palpated. There was thickening at the lower end of the front wall of the abscess, but no definite sacculus could be discovered and no sufficient thickening for a growth. Therefore, the exploration seemed to confirm the diagnosis. A stab wound was made into the loin, and a tube containing a wick of gauze was inserted. Two wicks of gauze were also passed, one upwards and to the right towards the pancreas which was covered with thick lymph. There was also a good deal of lymph on the mesentery of the upper coils of small intestine. A hand was passed into the pelvis, and foul serum was found there, but no collection of pus. The cæcum, transverse colon, and the stomach seemed to be normal, and the region of the gall-bladder also. The upper part of the wound was sewn with salmon-gut sutures, and the patient was infused $2\frac{1}{2}$ pints into the axillæ. On the 18th she was a good deal better, having slept all the night. Her temperature was normal, and pulse 108. She had a fairly comfortable day. The temperature was 100° in the evening, and pulse 110. She slept $5\frac{1}{2}$ hours in the night of the 18th. On the 19th she was a good deal better, but she was sick, bringing up a large quantity of rather offensive vomit in the morning. She took milk and water and tea, and a little Benger's food. In the evening the temperature was 99·4°, and pulse was 90. The bowels were opened once very freely, the motion being dark, probably from the bismuth which had been taken in the early part of her illness. She was much relieved, and slept well on the 19th. She made excellent progress, the tube being removed on the 23rd. A pelvic abscess had to be opened ten days later. The sigmoid and its appendices epiploicæ were found to be inflamed. Several of the appendices were very much enlarged and hard, and were thought to contain diverticula. The patient made a good recovery, and has remained free from further intestinal symptoms up to the present.

C. Localised Peritonitis.

Perforation of a diverticulum often gives rise to a localised pelvic peritonitis, and many pelvic abscesses of uncertain origin in elderly people undoubtedly belong to this class. In some cases the abscess is either opened or bursts on the surface. In others it discharges into the vagina or bladder. Occasionally

D. A Temporary or Permanent Intestino-vesical Fistula follows.

It may be remarked that an intestino-vesical fistula is much more commonly innocent than malignant. I have lately seen two examples of this condition, both of them in elderly men. The following is a particularly interesting example. It is remarkable that the patient denied all knowledge of constipation before the onset of the inflammatory symptoms, but, as Dr. Hertz has pointed out, the bowels may be opened every day and yet the patient may be suffering from constipation and distension of the colon. It is more than probable that this was so in this case. The patient's death was a great disappointment. His vitality had been sapped by years of suffering, and the operation was a difficult one, performed during the extreme heat of this summer, and this seemed to have a very depressing effect upon him.

Diverticulitis of the Pelvic Colon. Intestino-Vesical Fistula.

Case 3.—J. K., aged 54. The patient says that he has never suffered from constipation, and never missed a day. Seven years ago he had very severe pain in the lower part of the abdomen. This was worse on the right side. Appendicitis was diagnosed, and the patient was laid up in bed for a fortnight. He had a good deal of pain over the lower part of the abdomen during the next two years, and was never quite well. Meanwhile, he occasionally passed a little blood per rectum. Five years ago he had another attack of severe pain in the lower part of the abdomen, associated with symptoms of cystitis, and after a few days he noticed flatus and fæces coming away per urethram. This has persisted ever since. About every nine months the patient has had similar attacks of pain in the lower part of the abdomen, associated with temporary obstruction and pyrexia. These attacks usually dis-

able him for about two months. He came to see me on June 19th, 1911, when he was just recovering from the worst attack he had ever had. He said that he had a great deal of pain in defæcation and usually passed a little blood during the attack. He saw a surgeon four years ago who diagnosed cancer of the rectum with fistula into the bladder, and he advised against operation. He has since been to several hospitals, where, he says, the same diagnosis has been made. He wastes a great deal during the attacks, but he slowly picks up again. The patient looks anæmic and ill. The bowels act perfectly in the interval between the attacks.

The patient was admitted into Guy's Hospital, and examined with the bismuth and X-ray method without our deriving any further information. He was cystoscoped on July 14th, and the aperture in the bladder was found in the upper part of the posterior wall on the left side. Gas could be seen issuing from that neighbourhood. The aperture was indicated by a whitish prominence with a central dark crack. There was no sign of growth. Granulations were seen about the aperture. There was a considerable amount of cystitis. On sigmoidoscopy (the patient being in the perineal position), it was found to be impossible to introduce the instrument more than six inches where the bowel was rigid, fixed, and somewhat contracted, but no ulceration could be seen. An attempt in the left lateral position gave no better result. Bimanual examination revealed a hard swelling on the left side of the pelvis at the brim. This was not nodular, and was therefore thought to be inflammatory. The patient was advised to have an operation, which he gladly consented to, saying that he would prefer an artificial anus to his present pain and misery. It was thought probable that an anastomosis might be made between the small intestine and the front wall of the rectum, or a resection of a part of the sigmoid if necessary, with an end to end anastomosis in the pelvis over a large rubber tube with invagination.

Operation (on July 17th). The patient was anæsthetised. The abdomen was opened through the left rectus. A mass of adhesions could be seen in the pelvis, the small intestine being held down to the left side of the bladder. The Trendelenburg position was adopted, and a large pad and a gauze roll were inserted to keep the small intestines out of the way. The adhesions were then separated by blunt dissection. *In doing this, some fæcal matter was seen, and* it was thought that the opening was probably in one of the coils of the small intestine, several of which showed necrotic areas which formed part of the wall of a branching abscess, amongst the coils. Several of these areas were invaginated by means of fine silk. Several loops of the small intestine were acutely kinked, and it was clear that the attacks of obstruction that the patient suffered from were due to attacks of inflammation of these with increasing kinking. Their mesentery was shortened. Two necrotic areas were seen on the back wall of the bladder high up on the left, and several on the front and inner side of the descending loop of the sigmoid along the line of attachment of appendices epiploicæ. Through one of these a probe could be passed into the bowel. The perforation was invaginated with silk with some difficulty, and an appendix epiploica was used to reinforce the suture. No diverticula could be found, and the appendices were not larger than normal. The upper part of the sigmoid was normal. There was no obvious narrowing of the sigmoid at the site of the fistula. The opening was about 7 inches from the anus, and well above the angle formed between the pelvic colon and the rectum. The peritoneum was invaginated over the opening into the bladder with silk. The cæcum, which had been pushed away by the pad, was brought into the wound. The appendix was not inflamed, but an inch from its end there was a gap where a portion of it had clearly sloughed long ago, and it was thought probable that the patient's original attack was one of appendicitis, and that a residual abscess had formed towards the left side in the pelvis, and that it had burst both ways (into the bladder and into the sigmoid), and that from time to time a little leakage of fæcal matter occurred amongst the adhesions in that neighbourhood, setting up attacks of localised peritonitis. A tube containing a wick of gauze was left at the lower corner of the wound, which was otherwise closed in layers, catgut being used for the deep layers and salmon-gut for the skin. The operation, which was a difficult one, lasted about an hour and a quarter. The patient was not collapsed. He had a fairly good night, and was very well on the morning of the 18th, but about 12 o'clock he had a great deal of pain in the right flank, and complained of difficulty and pain on taking a deep breath. His abdomen was very rigid on pressure. The pulse was poor; he looked pale, and was perspiring. He passed urine fairly naturally, but a little gas came away (residual). A draught of peppermint on bread relieved his pain, bringing up gas. He had 10 mms. of pituitary extract injected subcutaneously, and he went to sleep and slept until about 4.30 p.m., when he awoke and vomited some water smelling of peppermint, and was greatly relieved. In the evening he was infused about 1½ pints, so that he need not take any water by the mouth, and rectal salines were out of the question.

On July 18th he had a good deal of pain on the right side of the abdomen, and a catch in his breath. He clearly had a little pleurisy on the right side. The gauze was removed on the 19th, and the tube removed and left out on the 20th. He had a good deal of gastric distension, and had to have oil of peppermint, which relieved him a good deal. A purgative was given by mistake on the 20th, and the patient had a good deal of pain on the night of the 20th, and was rather collapsed on the morning of the 21st. His pulse was 120. His bowels had not acted. There had been no trouble at all with the bladder. He gradually improved again, and was much better on the afternoon of the 21st. A rectal tube was used for flatulence, and peppermint and mist. ammoniæ were given by the mouth, and an ice compress on the head. He had no temperature, but he was spitting up a good deal of phlegm slightly blood-streaked. His abdomen was much more natural, and he was much more comfortable.

The patient got a good deal worse and weaker on the afternoon and evening of the 22nd. He felt the heat very much, and was thoroughly exhausted with it in spite of an ice-bag on his head. His temperature was normal. He died on the 23rd.

At the post-mortem there was peritonitis in the lower half of the abdomen, some œdema of both lung bases, bronchitis, and early pericarditis. The hole in

the bladder had healed, so that it could not be discovered on careful inspection and the use of a probe. The hole in the sigmoid had also healed. There were, however. a good many diverticula in the pelvic colon, which were not visible from without, but which could be easily found from within the lumen. Some of these were projecting into the appendices epiploicæ, and it is thought probable that one of these had perforated since or during the operation.

REMARKS UPON TREATMENT.

For peritonitis, whether diffuse or localised, abdominal section without delay is indicated, the peritoneal cavity being opened and gauze packs introduced into the flanks before the pelvic collection is liberated, the pus soaked up with gauze, and a large tube containing a wick of gauze introduced before the gauze packs are withdrawn.

For chronic or subacute obstruction, temporary colostomy is safe, and suffices in some cases; permanent colostomy has often been adopted ; ileo-rectotomy does not always cure. Resection, with end to end union, is the operation of choice under favourable circumstances.

For intestino-vesical fistula, cystoscopy and sigmoidoscopy should be adopted, with the hope of localising the fistula.

A hole into the right half of the bladder suggests appendicitis as the cause of the fistula, whereas a left-sided hole is probably due to inflammation of the sigmoid or pelvic colon nearly always due to diverticulitis. The sigmoidoscope may disclose the exact position of the intestinal orifice of the fistula, but it is more likely only to reveal the site of fixation, and particularly the absence of carcinomatous new growth. Cystoscopy also helps to exclude carcinoma as a cause. Solid bits of fæces in the urine point to the large intestine as their source.

A colon which is quite mobile for more than six inches from the anus is probably healthy enough to allow resection (if necessary) of the diseased part with end to end anastomosis from above. A lower position of the fistula may involve a more difficult resection after Mayo's rubber tube method.

Detachment of the colon from the bladder with closure of the openings into these viscera is not very difficult with the aid of good light and the Trendelenburg position. The bladder is easily closed, but the disease of the bowel remains. Colostomy with complete spur formation is safer, and relieves the distressing pain and cystitis, and may be followed by closing of the fistula, but it replaces one disability by another which is more noxious to the relations, and involves a secondary operation for the closure of such a colostomy.

It seems to me that the plan adopted for my patient is on the whole the best when there are no symptoms of obstruction of the colon.

Resection of the diseased part of the pelvic colon after separating adhesions and closing the perforation into the bladder is more radical, but it must necessarily be a more serious operation.

Ileo-rectotomy will not prevent fæces reaching the bladder unless the lower end of the ileum is divided, and it is questionable whether this will succeed, for fæces commonly regurgatates into the colon even as far as the cæcum. This regurgitation sometimes causes much pain and misery, apart from the presence of an intestino-vesical fistula.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

"Medical Revolution."

DEAR MR. EDITOR,—Under this fearsome title you recently reviewed a very interesting book written by an old Guy's man who occupied a prominent place amongst his fellow-students twenty years ago. The author is Sydney MacIlwaine, and those of us who know the man will want to read his book. Any of his contemporaries who may have missed your review will, I am sure, be grateful to me for drawing their attention to it in your correspondence columns. To others of your readers I would like to emphasise the opinion of your reviewer that the book, apart from the personality of the author, is well worthy of their perusal and careful thought. The author makes out a strong case for a complete reconsideration of our everyday attitude towards disease. As an onlooker he sees us missing the true aim of our great campaign in our fierce individual combats, and in a convincing and particularly lucid manner endeavours to show us how to reform our army and lead it to victory. We have all given lip service to the proverb that "prevention is better than cure" ; Sydney MacIlwaine's book calls on the profession to make this proverb its guiding principle.—Yours sincerely,

29th July, 1911. LAURISTON E. SHAW.

Hospital Accommodation for Middle-Class Patients.

DEAR SIR,—A vision of the future is, I believe, adequate medical help for all who require it, and adequate compensation for those who render such aid. May this also include the abolition of much class and economic distinction? However, at the present time such things exist, and our hospitals are charitable institutions organised and supported for the relief only of the necessitous poor. What is the opinion of your readers as regards the position of the so-called lower-middle-classes? They form a large body which, perforce must turn to hospital when ill, especially for surgical treatment. They cannot afford private operations and two nurses, or nursing homes, or even the paying wards of the general hospitals. Their presence in the hospitals constitutes a real difficulty. They are felt to be ousting the poor. *They are accepting as a charity what they could, at any rate, partially pay for,* and their illness is accentuated by just the lack of the manner of life they have been accustomed to—"the little more, how much it is," when one is ill. The cost of our In-patients is very nearly £2 per week ; would it be possible for £3 per week (including all surgical or other treatment) to provide hospitals or wards where quiet at night or

following operation could be more or less assured; a little more personal attention given, and a more varied simple diet supplied, with better service, than is now possible? These people have a great claim for consideration, as their need for medical help is apparent. The clinical experience they give the student is the same be their address the Boro' or Brixton. Most nurses take up private work after their period of training, and they could thus obtain practice in the kind of nursing attention that will later be expected from them. All this may not be practical, but fulfilment does occasionally follow dreams.—Believe me, Yours, etc. F. A. SHELDON.

Guy's Hospital, 30th July, 1911.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

The Disorders of Post-Natal Growth and Development. By Hastings Gilford, F.R.C.S. (Published by Adlard & Son, Bartholomew Press, Bartholomew Close, E.C.) 15s.

It is often said of the members of the medical profession that they devote so much time to the study of the treatment of effects that they neglect the deeper and more fundamental problems of causes. Not only this, but it is further said, frequently with more than a suspicion of a jeer, that when they do tackle the long series of effects in their search for a cause, their experimental methods not only lead them to no definite result, but even land them in a mire of experimental facts whose only effect is still further to obscure the issue; and when one looks round at the accumulated mass of so-called experimental evidence that modern medical research presents, one can but excuse it on the general grounds that such are the methods of all scientific researches and point to a few —a very few—instances where some valuable results have been obtained thereby. And, at the same time, one is compelled to admit that there is something lacking, something that should weld these facts into a more definite entity than the shapeless and meaningless mass they present to-day.

We believe that the fault lies, to some extent, with the majority of medical men, whether engaged in research or practice, who so often lose sight of the fact that they are engaged not only in a science, but also in an art; but still more firmly do we believe that in the study of medicine attention should be paid not only to the facts of science and the rules of art, but also to the principles of philosophy, and it is this want of appreciation of the value of fundamental philosophic principles in their application to the science and art of medicine that bars the way to real progress. We feel sure that it was the appreciation of this want that led to the writing of the book under review.

In the preface the author complains of the unsatisfactory nature of the classification of diseases. As he says, "The only sections which are really satisfactory are those which deal with traumatic diseases, diseases produced by animal parasites, by vegetable micro-organisms, and by intoxications of external origin. . . But as soon as this safe ground is left behind, we enter upon a veritable tangle of disorders and are at once hopelessly lost." In his attempt to clear some of the tangle the author has found it necessary to start from the fundamental principles of growth and development, and has endeavoured to determine in what way the disorders of the human body can be accounted for by a study of these principles and to indicate how they can be classified accordingly.

To review a book of this sort in detail is impossible, nor is it possible to pick out pieces here and there for criticism or discussion. Like all works dealing with general principles, it must be reviewed and judged as a whole, and we feel sure that when it has been read it will be regarded as a remarkably suggestive and stimulating effort. It must not be imagined, however, that the writer has neglected the facts of medical science and dealt only with speculative reasoning. On the contrary, he has allowed induction and deduction to go hand in hand, and has endeavoured, successfully, we think, to show their complete harmony in his results.

Although it is impossible to criticize in detail, we should like to mention one of the many suggestive ideas that occur in the book just to serve as a typical example of the many original points the author has made. In dealing with the general subject of growth, development and degeneration, the well-known facts of degeneration from the periphery of the organism—bodily and mentally—are mentioned, and the writer goes on to point out that the process is not only confined to the complete organism, but is true also of the individual cell and organ, and more than that, of the race as a whole. We never remember having seen these facts put together in the same way before, facts which are undoubtedly correlated by a general principle of growth and development applicable to the highest and most complex organic form—the race as a whole—as it is to the smallest living unit.

In conclusion we must express our gratitude to the author that he, of the many philosophers we believe the medical profession to number in its ranks, has thought it worth while to formulate his ideas in a definite form, and we sincerely hope that his example may be as stimulating to others as it has been to ourselves.

The Student's Handbook of Surgical Operations. By Treves and Hutchinson. (Published by Cassell & Co., Ltd., London.) 7s. 6d.

This handbook, of which a new edition is the subject of this review, is so well known that it is only necessary to notice a few of the changes that have become necessary in preparing the latest edition. The great improvements in modern abdominal surgery have necessarily compelled the authors to enlarge the section of the work dealing with that subject, but it is a matter for congratulation that by so doing the form of the book has not been altered, nor has the volume increased in bulk. But although the abdominal surgery has been treated at greater length, we think that it might have been extended still further to include at least some general principles underlying the operative treatment of the more acute and urgent abdominal conditions. For example, though the

removal of the appendix in the quiescent stage is described at some length, no mention is made of the methods employed in dealing with an appendicular abscess.

Another criticism we would like to make is with regard to the illustrations. These are, in most cases, rather crude, and in many we think that a little more care bestowed on their drawing and reproduction would considerably enhance the appearance of the book. But in these respects the present edition does not differ from the previous ones and will doubtless enjoy the same popularity.

Sport.

Cricket.

GUY'S v. BROMLEY.

Played at Bromley on July 22nd. Bromley won the toss and gave us a good spell in the field in a very hot sun. We turned up with seven men, which will not do the hospital cricket much good. However, they kindly gave us two "subs." Bromley scored 362 for the loss of 8 wickets, and we replied with 114. Andrew made 45, Birks looked like making runs till caught in the deep, Hunôt was very unluckily run out, and Harris took a good 29. Harkness took 5 wickets for 102, and bowled quite well.

BROMLEY.

E. Field, c Andrew, b Harkness	132
B. R. Barker, c Warner, b Harkness	17
B. H. Tucker, b Harris	1
J. F. Birley, b Harris	92
R. R. Wilkinson, b Harris	12
C. G. Hill, c Warner, b Harkness	26
F. L. Hamilton, c Birks, b Harkness	7
B. Batchelor, not out	39
A. C. Freeman, b Harkness	0
A. B. Neame, not out	16
S. A. Tucker, did not bat	—
Extras	20
Total (for 8 wickets)	362

GUY'S.

G. W. M. Andrew, c Wilkinson, b Barker	45
A. H. Harkness, b Batchelor	2
A. H. Birks, c Birley, b Neame	16
F. C. Hunôt, run out	4
—. Harris, b Batchelor	29
C. Warner, c Field, b Barker	2
J. P. Hamilton, not out	9
W. Atkinson, c Wilkinson, b Barker	1
C. Gibb, st Tucker, b Batchelor	3
Extras	3
Total	114

GUY'S v. LONDON COUNTY & WESTMINSTER BANK.

Played at Norbury on July 29th. A late start was made in this half-day match owing to trains being late and half the Guy's side going for a journey round Norbury in spite of the heat.

However, the ground reached, we won the toss for the first time since the Middlesex Cup Tie, and batted first on a good wicket. We made 214 for 5 wickets, and then declared, giving them the same time to get the runs. They made 114 for 3 wickets, and rain curtailed play a little. For us Birks and Andrew put up 87 for the first wicket, Birks making an excellent 48. Kennedy hit well and made a splendid 80. Harkness took all 3 wickets that fell. Afterwards we had to wait till the rain stopped, and were well looked after. Some of the home team lost their suppers.

GUY'S.

A. H. Birks, b Hartree	48
G. W. M. Andrew, c G. Bennett, b E. W. Bennett	44
R. S. Kennedy, b Power	80
A. H. Harkness, c G. Bennett, b Willson	7
F. C. Hunôt, b Willson	5
A. F. Rook, not out	16
—. Harris, not out	1
M. Scott, did not bat	—
C. Warner, did not bat	—
V. Glendining, did not bat	—
C. Gibb, did not bat	—
Extras	13
Total (for 5 wickets)	214

L. C. & W. BANK.

A. G. Gough, c Warner, b Harkness	21
R. S. Hartree, not out	66
E. A. Willson, c Birks, b Harkness	4
H. G. Baker, c Harris, b Harkness	8
C. J. Bowman, not out	11
C. J. Crossley, did not bat	—
Extras	4
Total (for 3 wickets)	114

Births.

CHASE.—On July 12th, at Sewardsly, Chesterfield, the wife of R. Godwin Chase, M.B., B.C. Cantab., of a daughter.

DRYLAND.—On July 23rd, at Pitfour, Kington Herefordshire, the wife of Mr. G. Winter Dryland, of a son.

HENDERSON.—On July 28th, at The Red House, Amersham, Bucks., the wife of Hal J. Henderson, M.B., B.S. Lond., of a son.

SEARLE.—On July 8th, at Bridge Street, Cambridge, the wife of C. F. Searle, M.B., of a son.

Marriages.

BROOK—LAMB.—On Thursday, July 20th, 1911, at St. Luke's Church, Finchley, by the Rev. S. W. Howe, M.A., Vicar, S. Stanley Brook, M.R.C.S., L.R.C.P., youngest son of Samuel Brook, of Sanderstead, Surrey, to Constance Maud Lamb, youngest daughter of William G. Lamb, of Hornsea, East Yorks.

KIDD—CURRY.—On July 15th, at St. Lawrence's Church, Isle of Wight, Walter Shirley Kidd, M.B., B.S. Lond., M.R.C.S., L.R.C.P., to Phillipa Olive, third daughter of Mr. and Mrs. Curry.

Death.

ROBERTS.—On July 19th, at Chung-King, China. Surgeon R. P. Middleton Roberts, R.N., H.M.S. *Teal*. (*By Admiralty Cable*).

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE.

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Passim.

GUY'S men will regret to hear that the Rev. W. A. Dunn, who has been Acting Chaplain to the Hospital since 1907, is giving up the post. He has been appointed Curate of Clapham, to take charge, in a year, of the new Church of the Holy Spirit, Clapham (Canon Green Memorial Church). The post of chaplain to a hospital must be one of the most difficult positions in the Church, and Mr. Dunn has carried out his duties in a way which has not only won him the love of the patients, but also the warm esteem and regard of the men who worked with him. In another column we publish an announcement of his marriage, and we feel sure that we are expressing the feelings of all Hospital men when we wish him and his wife the best of success and happiness in his new appointment. The Rev. C. A. S. Luxmoore-Ball, who has been Assistant Chaplain, now becomes Acting Chaplain to the Hospital.

THE habit of treating almost every form of illness by drugs, either with or without some other form of treatment, is so widespread in England that patients nowadays feel themselves badly used if they do not have their "bottle of medicine." Such wholesale drugging is undoubtedly bad, in that it is expensive, dishonest, and mostly useless. The only possible effect that the majority of mixtures prescribed can have is a mental one, and such suggestion can be quite as well brought about by other and less expensive means. In private practice the desire for and belief in drugs has become so fixed that the doctor must needs give in to the wishes of his patient. In hospitals, however, where economy combined with efficiency is, or should be, the keynote of administration, we can see no reason for the maintenance of this absurd custom. We knew one house officer who habitually gave aspirin to all minor surgical cases, and the iron mixtures which are so generously lavished on patients in the majority of cases do little beyond blackening their teeth! The "tonic" is a peculiarly British institution, and while undoubtedly useful in some few cases, is endowed by many medical men with the miraculous properties of the pills and potions so favoured by laymen.

THE reason, as we have stated, for this drug mania, is that patients insist upon having medicine of some sort. But it is the fault of our profession in pandering to this wish which encourages it. It is a grave mistake to underestimate the intelligence of patients, and often a succinct explanation will convince a patient that his particular malady will not be cured by drugs. What is even worse, however, than the waste of money and material induced by this habit, is the self deception which it ultimately engenders. An oft repeated lie becomes a truism, and self-deception leads to mental diplopia. That this self-deception is unconsciously realized by the profession is shown by the enthusiastic welcome accorded to each new drug. Each in turn is hailed as the panacea for this state of things, but the vast majority go to swell the ranks of

therapeutic failures. Our knowledge of therapeutics is, as a rule, so small, that it becomes easy to mistake psychical for pharmacological action, and to ascribe results to our drugs which are in reality due to our dishonesty in prescribing them.

HOSPITAL Out-patient treatment is notoriously difficult, but there is no doubt that more ample directions as to mode of life, diet, exercise, etc., would be of greater use than the "take the medicine three times a day and come again next week," which is the usual Out-patient formula. As Dr. MacIlwaine pointed out in Medical Revolution, modern medicine tends to neglect ultimate causes even when they are discoverable, and the ultimate cause of most minor ailments is faulty personal hygiene. When once the profession realizes to what an extent it deceives itself with regard to drug treatment, it will devote itself to a study of personal hygiene, about which the average doctor knows very little more than his patients. It is perfectly true that in the homes of most hospital patients personal hygiene is impossible, but even here a certain amount of improvement will follow good advice, and even the smallest amount of honest advice is worth many bottles of dishonest medicine.

IN our last issue we published a letter calling attention to the lack of hospital accommodation for the lower middle classes. It is a great pity that, at present, only the very poor and the very rich can obtain what is supposed to be the best medical advice and treatment. While the money question plays a large part in the matter, there is another factor which is even more important. In no profession other than medicine is there such a lack of distribution of work. Under the present conditions every medical man must actually practice nearly the whole of medicine and surgery. Specialism has done something to alter this, but not nearly enough, and it seems absurd that the general surgeon should be called upon in the same day to remove, perhaps, a sebaceous cyst and a Gasserian ganglion. In private practice this is, no doubt, unavoidable, but in hospitals, surely, it might be overcome. Our correspondent suggested paying hospitals, where just those additional comforts might be provided which mean so much to the sick. The great objection to this scheme is the matter of the payment of its medical officers, because payment of some kind is an essential part of the scheme. If, however, a better distribution of work could be arranged, so that highly trained men need not waste their time over work which could easily be done by much less experienced hands, the problem would be more easy of solution. Some scheme is undoubtedly needed to enable middle-class patients to obtain, and pay for according to their means, adequate surgical treatment, and we shall be pleased to hear any ideas which our readers may have on the subject.

IN our correspondence columns will be found an admirable letter from Dr. Vicars criticising severely our remarks in Passim of the last issue in reference to the National Insurance Bill. In the first place we would inform Dr. Vicars that the Editor holds himself entirely and solely responsible for Passim, as well as for all other unsigned articles which may appear in the GAZETTE. Not for one instant would we attempt from our "obscure cave" to "dictate the policy of our great profession;" what we would do, however, is to point out to the profession that it has expressed its approval of the general principles of the Bill, and to remind it that such an expression of approval carries with it an implied undertaking to support the Bill when details have been satisfactorily arranged. We repeat our statement of the last issue, that the amendments to which we referred have gone a long way to meeting the recommendations of the British Medical Association. It is true that the question of the income limit has been referred to the Local Health Committees; but, if medical men see to it that they are adequately represented on these committees, the settlement of their grievance is in their own hands.

No one will deny the great humanity and benevolence of medical men to their patients, but it is undoubtedly wrong that any large number of men should *depend* upon promiscuous charity. It is equally wrong that medical men

should be asked to work for inadequate remuneration; but it is our belief that adequate remuneration and efficient treatment can be, and will be ultimately, attained under the present Bill. Therefore, with all deference to Dr. Vicars and others who think as he does, we repeat that the Bill should be welcomed by medical men, providing that it is amended to meet their just, and on the whole moderate, demands. The great point which our profession has to attain as yet, is adequate representation on the local health committees, but a firm attitude on this question will, we feel sure, secure it. We would emphasize that our support of the Bill is entirely free from political bias, and is dictated solely by what we believe to be the best interests of the national health.

A nursing correspondent writes us as follows in respect to the Bill:—

> We have heard much of the benefits, or otherwise, that will accrue to Nurses as insured persons under the Bill. It is of interest to find that in one clause (No. 17) their position can be studied from an entirely different standpoint, not that of personal gain, but as workers under the Bill.
>
> "It shall be lawful for an approved society to grant such subscriptions or donations . . . for the support of district nurses, and to appoint nurses for the purpose of visiting insured persons, etc." Mrs. Mollett, Hon. Sec. of the Matron's Council of Great Britain and Ireland, writes to the Press to point out that the term "Nurse" is in no way qualified, no special training and efficiency is demanded or at least mentioned.
>
> Here, of course, is the opportunity of State Registration supporters who agree that on such an occasion a legal status obtained by examination or diploma should be demanded, as it is from all other professions. This would be evidence of length of training and education and to a certain extent of character.
>
> A thoroughly good suggestion in the same letter is that nurses should be represented on the Local Health Committees.
>
> "Their interests are already very largely involved in national health questions; they will be so to a still larger extent in the future.
>
> Their experience of sickness and its *social results* is so considerable that the presence of trained experienced nurses would be of undoubted benefit to the committees."
>
> When the Bill is under discussion in the Autumn Session it is to be hoped that these points will receive attention.

We note with pleasure that direction boards showing the way to the Surgery have been placed on either side of the St. Thomas's Street entrance to the hospital. The need for these boards was pointed out by a correspondent in our columns, and we feel sure that they will save patients much inconvenience and annoyance. An illuminated sign for night use is still needed, but we understand that that also will be ultimately forthcoming.

Those who wish to read papers before the Physical Society during the ensuing session, should send in the subjects for approval before September 15th, to the Hon. Secs. C. H. Rippman and G. W. Goodhart.

Pass List.

University of London.

First Examination for Medical Degrees, July, 1911.

Pass List.

Bowes, E. S.	Knott, F. A.
Campion, O. St. L.	Lloyd, V. E.
Cocking, A. W.	McEvedy, P. G.
Glover, E. N.	Tweed, M. B. M.
Guinness, A. F. G.	Wacher, H. S.
Hirsch, V. R.	Waghorn, L. P.
Jones, J. G.	Wallis, M. J. T.

Woodruffe, K. M. C.

Second Examination for Medical Degrees, July, 1911.

Part I.

Organic and Applied Chemistry.

Pass List.

Baxter, C. W. W.	Leviseur, E. A.
Davies, A. W. A.	Nicholls, W. H.

University of Cambridge.

Degrees Conferred.

M.B., B.C., F. D. Saner and A Sandison.

Society of Apothecaries.

Surgery.—Part II.

R. M. Wingent.

Three Cases of Dislocation of the Hip.

BY P. TURNER.

DURING the past twelve months I have had occasion to treat three cases of dislocation of the hip in this hospital. Dislocation of this joint is a decidedly unusual injury, an examination of the indices in the Surgical Registrar's room showing that about two cases a year are admitted to the wards. While each of the three cases showed many of the characteristic features of the injury, yet in each there were unusual points of special interest.

Before discussing the individual cases, it will be best to consider certain anatomical points which have an important bearing on either the cause, signs, or treatment of the dislocation. It will be necessary first of all to consider the reasons for the strength and security of the joint. The difficulty with which the head of the femur is displaced from the acetabulum in a normal hip-joint is familiar to all who have excised the head of the femur in the operative surgery class. This security of the joint depends upon the following causes:—

1. The depth of the acetabulum, especially above and behind.

2. The cotyloid ligament which is attached to the margin of the acetabulum. It deepens the cavity, and, in addition, its internal surface grasps the head of the femur, acting as a kind of sucker. In the class-room operation of excision of the hip it is not possible to remove the head until the cotyloid ligament has been incised in one or more places to allow air to pass into the cavity of the joint.

3. The capsule, the strength of which, however, is by no means uniform. It is strongest above and in front, where it is especially thickened to form the very strong ilio-femoral ligament, or Y ligament of Bigelow. This ligament, which is attached above to the anterior inferior spine of the ilium, and below to the anterior inter-trochanteric line, is very rarely ruptured, and its integrity after dislocation supplies the fulcrum which renders reduction by manipulation possible. The weakest part of the capsule is situated behind and below, where a weak accessory band of fibres, the ischio-capsular ligament, extends from the tuberosity of the ischium to merge with the circular fibres of the capsule. The acetabulum is also weak below where the cotyloid notch forms a wide gap in its bony wall. It is true that the notch is bridged over by the transverse ligament, but this is a very poor substitute for the bony rim.

We have now to consider under what conditions the head of the femur rests against this weak portion of the capsule and the cotyloid notch of the acetabulum. If we examine a wet preparation of the hip-joint, it is easy to determine that when the femur is fully abducted the head rests against this weak area, and, indeed, if, in addition, the joint be flexed and internally rotated, the head leaves the deep, safe upper part of the acetabulum and indeed rests chiefly against the weak portion of the capsule. It will also be seen that abduction is checked by tension of the lower part of the capsule and of the pubo-femoral ligament. When in this position comparatively slight violence will force the head through the tense thin capsule and produce a dislocation. Dislocation of the joint may, indeed, be experimentally produced on the cadaver by forcible abduction alone.

Thus, from a consideration of the anatomy of the joint we should expect the dislocation to be the result of forcible abduction, and there is no doubt that this is the mechanism of its production in the great majority of cases. Astley Cooper says, "The dislocation on the dorsum ilii is produced by the patient falling when the foot and knee are turned inwards, or by a blow received while the limb is in that position"; or, in other words, that this, the commonest variety of the dislocation, is produced when the joint is adducted. If, however, we place the joint in this position in a wet preparation, it will be seen that the head of the bone rests against the deep upper and posterior portion of the acetabulum and is in a position of security. If dislocation does occur in this position it will be associated with a fracture of the acetabulum.

Many varieties of dislocation have been distinguished, but we may divide them into two groups (*a*) *Dislocation forwards*, of which there are two varieties (1) the obturator dislocation, in which the head of the bone rests against the obturator foramen, and (2) the pubic dislocation, when the head rests against the horizontal ramus of the pubis; (*b*) *Dislocation backwards*, of which there are, again, two varieties (1) dislocation on to the dorsum of the ilium, and (2) the sciatic dislocation, in which the head rests in the

sciatic notch. In all the above varities of dislocation, the head leaves the capsule *below*, its subsequent position depending upon the extent and direction of the force and the position of the limb. If the joint is abducted, flexed, and internally rotated the head will be forced either on the dorsum of the ilium or into the sciatic notch or some intermediate position. If, on the other hand, at the time of the injury the limb is abducted, extended, and externally rotated, either the obturator or pubic dislocation will be the result. These points can all be easily verified by manipulation of a wet preparation of the joint.

All dislocations of the hip are produced by indirect violence applied either to the leg when the trunk and pelvis are fixed, or to the trunk when the leg is fixed. The latter is the more usual cause. We can now proceed to the consideration of the three cases in question.

Case 1.—John W., æt. 6, was admitted to Cornelius on June 13th, 1910, for an injury to his left hip. He had been riding "pick-a-back," and while playing this game he had been pushed off by another boy, falling over to the left and landing on his left side. The lad who was carrying him endeavoured to save him by holding his left leg tightly, the right, however, escaping from his grasp. After the fall, he tried to get up, but was unable to do so.

On admission, the left hip was flexed to an angle of nearly 45 degrees. The left knee was held over the lower part of the right thigh, so that in addition to the flexion there was also considerable adduction and internal rotation at the hip joint. The left buttock appeared larger and more rounded than the right, and at the same time the gluteal fold was slightly obliterated. The left great trochanter was less prominent than the right. It was displaced backwards, and on palpation a rounded mass—the head of the femur—could be distinguished on the dorsum ilii.

Tho top of the left great trochanter was one inch above Nelaton's line, and measurement from the anterior superior spine to the extremity of the internal malleolus showed one inch shortening on the injured side.

The most interesting point about this case is the age of the patient. Dislocation of the hip is essentially an injury of early adult life. It is distinctly rare in children, in whom a separation of the epiphysis, partial or complete, or a fracture of the neck of the femur is more likely to occur. It may, however, occur at an age considerably less than the present case, and has been recorded even in a child of 18 months.

Let us now consider the way in which the lesion was produced in this child. The left leg was firmly held by the other boy, and hence the force was applied to the trunk and pelvis, the movement of which resulted in the dislocation. The lad fell over to the left, and hence violent abduction of the left hip-joint was produced. The hip in riding "pick-a-back" is flexed, and as he fell over to the left the joint must have been in a position of flexion. Had it assumed a position of extension, the weight of the child's body would have caused him to fall to the right side instead of to the left. Now, consider anyone falling to the left with the left leg fixed and the hip-joint flexed, and you will see that there must also have been internal rotation of the joint. It is thus seen that there was in this patient forcible abduction, flexion, and internal rotation of the hip-joint. We have seen that under these conditions the head of the bone leaves the capsule below and then passes backwards either to the sciatic notch or to the dorsum ilii.

The *deformity* was characteristic of the dorsal dislocation. The hip was held in a position of flexion, adduction, and internal rotation. It is easy to reproduce and remember this position by standing with the hip slightly flexed and the ball of the big toe resting on the instep of the opposite foot.

Neither of the present three cases was an anterior dislocation, but when the head of the femur is displaced into the obturator foramen or on to the ramus of the pubis, the hip is extended, slightly abduced, and externally rotated. The characteristic appearance may be remembered by standing with the leg slightly abducted and externally rotated, with the ball of the big toe resting on the ground.

In the present case, though a slight amount of flexion was possible, the joint could not be abducted. On comparing the trochanters, that of the injured side was less prominent, and appeared to be displaced inwards and backwards. It was also raised about one inch, as shown by Nelaton's line and by comparing the length of the limbs. All these points are characteristic of dislocation on to the dorsum ilii, though in an adult the shortening may be two inches or more. In the anterior dislocations, on the other hand, there is usually slight lengthening of the limb.

The diagnosis in this case presented no difficulty. From a consideration of the above points it was certain that there was a dorsal dislocation, and this was confirmed by a radiographic examination. Had there been a separation of the epiphysis or fracture of the neck of the femur, the leg would have been everted, though shortening of the limb and displacement of the trochanter would also have been present in these injuries.

A recent dislocation of the hip is best reduced by manipulation. An anæsthetic is always necessary to ensure thorough relaxation of the muscles. In cases of dorsal or sciatic dislocation, the manipulation is as follows: The hip is fully flexed in the position produced by the injury, *i.e.*, of adduction and internal rotation. It is then abducted, externally rotated, and finally extended. The movements should, of course, be carried out in one continuous sweep, and the result in the present case was that the head went back into the acetabulum with an audible click, the deformity disappeared, and free movement of the joint in every direction could then be obtained.

In cases of obturator or pubic dislocation, the following manipulation must be carried out. The hip is fully flexed in the position of abduction and external rotation produced by the injury. It is then adducted, internally rotated, and extended.

The success of these manipulations depends upon the continuity of the Y ligament. Owing to the attachments of this ligament, the neck of the femur is slung from the anterior inferior spine of the ilium, and thus affords a fulcrum about which movements can take place. The head and neck form the short arm of the lever, while the shaft and lower extremity of the femur form the long arm. Flexion relaxes all the structures about the joint, while the subsequent movements make the head retrace its course into the acetabulum. The direction taken by the head of the femur in these manipulations can be followed by remembering that the head of the normal bone looks in practically the same direction as the tuberosity of the internal condyle.

Case 2.—Watson D., æt. 45, was admitted into Cornelius on February 17th, 1911, for an injury to his right hip, with the following history. On January 15th, *i.e.*, 33 days before admission, he was engaged in loading goods in the hold of a ship. He was stooping down, with his legs widely separated, arranging some packages when some heavy bales fell from a crane, striking him on the back. The nature of the injury was not at first recognised, and it was regarded as a sprain. On admission, he was walking with the help of crutches. The right leg was in the characteristic position described above—the hip was flexed, adducted, and internally rotated, so that when he stood up with the help of the crutches, the ball of the right big toe was over the instep of the left foot. Owing to the wasting of the muscles from disuse, the deformity was very striking. The joint could be slightly flexed, but abduction was again impossible. The right great trochanter was displaced backwards and inwards, and was raised to such an extent that its upper extremity was almost on the same level as the anterior superior spine. The right leg was two inches shorter than the sound limb.

The causation of the injury is very interesting. It will be noticed from the patient's own account that he was bending down, that is, the hip-joints were flexed and his legs were widely separated, that is, they were also abducted. He was unable to tell us the position of his feet, but if you notice a man working in this attitude you will see that the position of internal rotation is much more commonly assumed than one of external rotation. The force again was applied to the trunk in the sacral region, the the legs being fixed.

The chief point of interest about the treatment was the length of time which had elapsed since the accident. For about two weeks after the injury reduction may be expected to be easily effected, but after this time the difficulty rapidly increases. This is due to several causes: The acetabulum becomes filled with blood-clot, which subsequently organises and tends to obliterate the cavity; the head of the femur becomes fixed by adhesions in its new position, and eventually a new joint may develop; the muscles become shortened and contracted, and the original capsule and ligaments become shortened and altered in shape in accordance with the new position of the head of the femur. In the present patient the dislocation had taken place 33 days, or only two days less than five weeks. This being so, it was recognised that reduction by manipulation might be impossible. Many cases have, however, been recorded where reduction has been effected by manipulation up to 8 weeks after the injury. Christopher

Heath records a case where reduction was effected by manipulation 106 days after the injury, which must be one of the longest intervals on record.

The present patient was fully anæsthetised, and then placed on a mattress on the floor, a position which gives one a far greater command over the limb, and enables one to put much more force into the manipulation. The pelvis was steadied, and then the manipulations described above were carried out, two or three times without success. Much greater force was then used, with the result that the head went back with an audible click, after which the deformity disappeared, and all movements of the joint could be readily carried out. Massage was started at once, with passive movements on the third day. The patient was seen a few weeks ago, and he then had good movement in the joint, though there was still some pain.

Forcible movements of an old dislocated hip-joint have to be carried out with much care. In elderly people the femoral vessels may be torn or the soft parts severely lacerated. It is quite possible, too, that the neck of the femur may be fractured, especially as there is a tendency for the upper extremity of the bone to become atrophied in a case of unreduced dislocation.

Case 3.—Alexander P., æt. 32, was admitted December 28th, 1910, for an injury to his left hip. Unfortunately, the report has been lost, and, as a letter to the patient has failed to bring any information beyond the fact that he is able to perform his work (a chauffeur), the history of the injury is not known. When admitted, however, the left hip was flexed to a right angle. Manipulation caused great pain, and produced no movement in the joint whatever. On palpation, the left great trochanter was less prominent than the right, and appeared to be displaced inwards. The patient was a well-developed, muscular man, and satisfactory palpation of the bony points was thus a matter of great difficulty. The left thigh appeared to be shortened, but in the position it was not possible to take any measurements. A radiographic examination was made shortly after admission, and a report sent to the effect that the trochanter was driven inwards, and that there appeared to be an impacted fracture of of the neck of the femur. The patient was then removed to the theatre, with the object of breaking down the impaction and bringing the leg into its normal position, when a further radiographic examination would show the nature of the displacement and indicate the best means of treatment. When the patient was fully anæsthetised, the knee was grasped and the hip was slightly flexed and then extended. To our surprised there was an audible click; the leg assumed its normal position, and after this free movements could be made with the greatest ease in any direction without the production of any crepitus. Measurement showed that there was then no shortening of the limb.

A subsequent radiographic examination, too, showed no fracture of the neck or any other part of the femur, and no fracture of the acetabulum. A long Liston's splint was applied, massage and passive movements started on the following day, and the patient left the hospital on January 14th.

There can be no doubt that this was a case of dislocation of the hip-joint. The chief interest was the displacement—the thigh flexed to a right angle without any adduction or rotation of the limb. This is a very rare deformity, though several similar cases have been recorded. In these cases the head of the bone has usually passed backwards into the sciatic notch, which I believe to have been the condition in the present case.

Another point of interest is that the dislocation was not recognised on radiographic examination. It must be remembered, however, that this examination was rendered exceedingly difficult by the muscular development of the patient and the fixed flexed position of the hip, which seriously hindered a satisfactory view of the joint.

Papers by Guy's Men.

F. E. Fremantle, M.B. Oxon., F.R.C.P., F.R.C.S., D.P.H., County Medical Officer for Hertfordshire: Abstract of the Edward Jenner Lecture on School Health. Delivered at the Medical School, St. George's Hospital. —*Lancet*, August 5th, 1911.

H. R. Shapland, L.D.S.: Tantalum and its Uses in Dentistry. Read at the Annual Meeting of the Western Counties Branch British Dental Association, July 15th. —*British Dental Journal*, August 1st.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs.*

Cancer of the Breast.

CLINICAL LECTURE BY MR. C. H. FAGGE.

GENTLEMEN,—I propose to read you some notes of cases of cancer of the breast, and then to contrast them one with the other, and to draw your attention to some points in the diagnosis of cancer from other conditions.

I was asked to see, recently, a widow, aged about 40, who for two years had noticed a small tumour in the right breast. Only a week before I saw her she drew her doctor's attention to the condition. She was a very tall and large woman, and both her breasts were voluminous: below the right nipple was a mass 3 by 3 inches, hard, yet well covered by a thick layer of fat. I think it is not generally appreciated how in a fat breast the hardness of the subjacent tumour is obscured by the amount of soft tissue which lies over it. This was a case in which the hardness of the tumour, as demonstrated at the operation, was definitely diminished by the large amount of fat in her subcutaneous tissues. The skin over the tumour was distinctly flattened, and could be puckered up with the fingers.

In the presence of mammary scirrhus the normal convex outline of the breast is occasionally interrupted by a distinct pucker, or dip-in, which is one of the characteristic signs of subjacent growth. This is explained by the traction of the fibrous stroma of the growth, not only on the skin, but also on the nipple, and the connecting link between the growth and the skin is the fibrous strands which everywhere connect the skin with the connective tissue of the breast, first described by Sir Astley Cooper, and therefore called Cooper's ligaments. A slight variation of this view is that of Handley, who regards the spread of growth as a gradual centrifugal permeation, and in this the columns of advancing cells are gradually invading the perivascular lymphatics which run along Cooper's ligaments. As the growth spreads peripherally, inflammatory cells attracted to the spot by glandular proliferation gradually become converted into fibroblasts, enveloping and strangling the continued malignant gland cells. He therefore arrives at the conclusion that the retraction of the skin is due to the gradual conversion of these cancerous columns into fibrous tissue, as contrasted with the first theory that the growth itself was contracting and dragging upon the normal fibrous elements which connect the skin to the breast.

I think there is a distinct stage which is nearly always demonstrable before so marked a stage of contraction as is suggested by puckering is arrived at, and in this early stage the normal convex outline of the breast is interrupted at some spot by a distinct flattening. This is more distinct on looking at the breast in profile.

In the case of this very fat lady, I made a note, after examining her, that the skin over the tumour was distinctly flattened; there was no puckering yet, but on taking up this area of flat skin with the fingers it could be definitely dimpled, and it gave the impression of a very well marked concavity inwards. The nipple was unaltered; the growth was not fixed to the pectoralis major, and there were no palpable axillary glands. In a woman of this age, especially one who had not borne a child, it was more than suspicious that this mass in the breast was cancer. A few days later the breast, the axillary contents, and the sternal portion of the pectoralis major were removed by a long incision extending well downwards into the epigastric space, so as to include the linea alba and the anterior layer of the rectus sheath in their upper quarter. Of course this, in such a big woman, left a very large scar, the sutured incision being 24 inches long. Dr. Eastes reported that the tumour was an acinous cancer with epithelial cells set in alveoli in the midst of a dense fibrous stroma. The patient left her bed six days after operation, and a few days later returned home. The most important thing to notice about this case was, first, the absence of pain, and, secondly, the slow growth in a woman who was big and virile, and rather below the usual age of patients affected by cancer of the breast.

Another case was that of an unmarried lady of 37, who for three years had noticed a lump in her right breast, which because of its mobility and definition was thought to be an adenoma. But within a few weeks of my seeing her, the mass in the breast enlarged, and I found a large mass four inches by two, in the upper and outer segment of her right breast. The skin over it was distinctly puckered, even without manipulation; the outline of the tumour was ill-defined, and the tumour could not be moved apart from the rest of the mammary gland. It was not fixed to the pectoralis major, and one could feel some

small glands along the outer border of the pectoralis major, where the thoracic set of axillary glands lie.

I would digress here to point out a mistake which is sometimes made, but not as often as it used to be, by students examining the axilla for enlarged glands in a case of suspected carcinoma, who push their fingers up to the top of the axilla, expecting to find lumps in that position. If, as is usual, the tumour is in the outer segment of the breast, the glands first enlarged will be those which lie along the lower or the axillary border of the pectoralis minor accompanying the long thoracic vein and artery; these are called the pectoral set of axillary lymphatic glands. Therefore the least likely place to find enlarged glands is at the top of the axilla, where the glands will only be invaded in a very advanced case.

This lady's breast was excised in the same manner as the first, and Dr. Eastes reported that it was typical scirrhus.

Remember that in my first patient a tumour had been noticed in her breast for two years, and in the second for three years, and in marked contrast to this chronicity are the following:—An unmarried woman, æt. 35, came to the Out-patient Department last December. There was no history of any importance connected with her present illness. Seven weeks before she came to the hospital she noticed a pain in her right breast; this was sometimes dragging in character, sometimes very sharp, and was felt in the lower part of the breast. At the same time she noticed a hard lump to which her attention had not been called before. Since first noticing the lump, she believes it has got harder, but no larger. Six weeks after noticing the lump she went to Dr. F. E. Walker, of Uxbridge, who sent her up to see me on the following day. She was at once admitted, and my ward-clerk, Mr. Fawcus, describes the case in these words, "the right breast contains a tumour which is almost co-extensive with the breast. The skin over it is fixed, and the tumour is not freely moveable on the deeper structures; there is a chain of enlarged glands in the right axilla, and the enlarged glands are very hard. The tumour in this breast is exceedingly hard and is somewhat smooth to the touch. On the upper and outer aspect of the left breast is a small hard lump, the size of a small walnut, which has fairly definite edges, and is freely moveable in the breast, not being attached to either deep or superficial structures. There is an ill-defined, larger tumour, situated beneath the left nipple, and to which the nipple is attached. The patient has lately been troubled with a cough, the liver is not enlarged, there are no enlarged supra-clavicular glands. Mr. Fagge's opinion is that the large tumour in the right breast was either inflammatory or growth. The small lump in the left breast was thought to be an adenoma, but doubts were expressed as to the nature of the growth beneath the nipple on the left side."

This case is very fresh in my memory. It did not seem to me that there was any reason why a woman of 35, who was unmarried, should have a large inflammatory tumour in the right breast. If she were married and had recently had a child, everybody would have said that was the ordinary subacute mastitis which you so commonly see as the result of an infection during lactation. But against a diagnosis of malignancy, which was the obvious alternative, it is, in my experience, very unusual for a tumour to reach such a size, in a period of seven to eight weeks, that the ward-clerk should say it was almost co-extensive with the breast. Under an anæsthetic a free exploratory incision was first made into the right mammary tumour, and we saw at once that it consisted of homogeneous hard growth. The incision was cauterised, carefully shut off with pads, and all towels and instruments changed; excision of the breast was proceeded with. An incision was made crossing the anterior fold of the axilla, continuing along the floor of the axilla, to encircle the breast, and continued some inches in a forward and downward direction. The breast was removed, with the sternal portion of the pectoralis major, and part of the serratus magnus, and with all the fat and the lymphatic glands from the axilla; the fascia and sheath were also removed from the upper part of the rectus. The edges of the wound could not be brought together, and a gap had to be left three inches in length and one inch across. The tumour presented a pale yellow appearance, resembling ivory; it was of the usual hardness. Some secondary deposits, about the size of split peas, were removed from the fascia covering the intercostals. This was done last December, and as it seemed a very rapid and malignant type of growth, in that secondary deposits had spread through the pectoralis major to the fascia covering the intercostal muscles, within seventeen weeks of observing any mammary tumour, the patient was given X-ray treatment, and I have seen her from time

to time since, when she has been attending in the Light Department. In January there was a well-marked recurrence in the axilla, and now, extending backwards towards the spine there is a considerable indurated area in the subcutaneous tissue of about two feet in diameter, with secondary nodules scattered about it (cancerous pachydermia). So Dr. Iredell and I have agreed that further X-ray treatment is useless.

The distribution of these secondary deposits is of considerable interest pathologically, because it, as do many other cases, confirms Handley's observations as to the spread of cancerous growths from the primary focus, such as the breast; he contends that they are distinctly centrifugal—that, subject to mechanical barriers, such as fascial planes, bones, etc., they tend to spread uniformly in all directions, just as if some expansile force were present in the centre of the growth, which was equally distributed in all directions, and he supports this opinion by the observation that the subcutaneous distribution of secondary deposits in such cases is usually found to be circular in outline, the centre of the circle being the excised mammary organ. You will agree that this case very well confirms this observation, for the cutaneous distribution of these growths is over a circle of which the scar is the centre.

I must not allow you to go away with the impression that the growth has recurred in the skin, for on first meeting with such a recurrence one readily assumes that enough skin has not been removed. And on this assumption, in the early 90's, many surgeons extended their operations by extending their skin incisions. It has since been shown, especially by Handley's work, that primary recurrence in the skin is most unusual, but that cancer tends to spread along the fascial planes, permeating the skin from below, and that therefore the keynote to all operative interference with cancer of the breast, and cancer elsewhere, is a free removal of the fascia and connective tissues underneath and around the organ—free removal, that is, of the perivascular lymphatics lying in the fascial planes, and that extensive removal of the skin is comparatively unimportant.

Another acute case had an interesting origin. It was in a lady æt. 46, who, in August, 1909, was struck by her father's elbow on the left breast. Feeling some tenderness in her breast she examined it with her hand, and found a lump, and, two or three days later, distinct subcutaneous ecchymosis appeared. The breast became harder, and the patient, who was then on a holiday in Switzerland, returned, owing to her fear that this tumour in her breast might be more than a local bruise. I saw her with her doctor five weeks after the date of the blow, and then the upper half of the left breast was occupied by an ill-defined hard mass not fixed to the pectoral; the superjacent skin was discoloured by bruising, and there was one palpable enlarged gland in the left axilla; a small, ill-defined mass was felt in the right breast. A few days later I incised the mass, which cut as a homogeneous mass, and looked like a typical scirrhus. I therefore removed the left breast by a wide incision with the whole of the pectoralis major, and cleared out the axilla. There were some small glands lying along the vein corresponding to the first part of the axillary artery, and they were distinctly hard and shotty. She recovered satisfactorily, but three months later the lump in the right breast, which was quite small when I first saw her, and which we agreed was a small area of lobular mastitis, had become enlarged and more indefinite, and I excised it for examination. But on inspection it had the same appearance as the growth on the left side, so I excised the whole of that breast and cleared out the axilla. The first growth was reported by Dr. Eastes to be typical glandular carcinoma. The second showed extensive chronic mastitis, but there was an area of cancer undergoing mucoid softening, and the lymphatics in the axilla were extensively involved in the growth, which was also becoming mucoid. In spite of the two extensive operations, recurrence took place in the breast first operated upon. She became short of breath, and fluid was detected in the left chest. Her chest was aspirated, and several pints of blood-stained fluid evacuated, and she quickly died. In fact, her death took place within a year of the original injury, which was probably the exciting factor in her case. I think, looking at this case now, it is well to be guided by the general principle that it is hopeless to operate on an early recurrence in the other breast when one has been already removed on account of malignant disease. What mainly led me to carry out the second operation was the extremely hopeful attitude of the individual, and the fact that she showed no evidence of cachexia or of secondary visceral disease. Even when she was orthopnæic, with her chest full of fluid, she was as fat as when I first saw her. *I think the typical picture of cachexia* (with extensive secondary deposits in the skin),

as shown in Sampson Handley's book, does not often occur: possibly it is true that patients suffering from acute forms of cancer of the breast are largely spared emaciation and the rapid depreciation of all their bodily functions, in that they seem to die before the growth has worn out all their other tissues.

One cannot say that one of these acute cases is less typical of cancer of the breast than the other slowly growing type, because between these two all shades of rapidity of growth and hardness of the primary lump seem to exist. It is possible that in cases 1 and 2 the original growth was an adenoma which secondarily became cancerous, and many pathologists have expressed the opinion that adenoma of the breast does become carcinomatous. I have never been able to watch a case which one could definitely say was an adenoma clinically and which later became carcinoma, and would rather believe that a growth in the breast which is originally malignant is always malignant; that a growth which is originally innocent is always innocent. In case 4, traumatism was the most important factor as the exciting cause.

In typical carcinoma of the breast the chief physical signs on which one relies are, first, a single ill-defined tumour. And there is difficulty here also, because only two weeks ago I operated on a doctor's widow who had, in the right breast, two small lumps, one below and one above the nipple. The nipple was slightly drawn up, so that it was somewhat higher than the left. The upper lump was distinctly hard, and could not be dispersed on examination with the flat hand; it was not fixed to the pectoral and skin: there was one palpable gland just outside the pectoralis major. The breast was removed by the ordinary route, and both the tumours were proved microscopically to be carcinoma. The tumours must have been $2\frac{1}{2}$ inches away from each other, and so one could not be regarded as secondary to the other. There is a similar specimen in the Museum, in which a breast is occupied by three large tumours, and the catalogue tells us that microscopically one is a carcinoma and the other two are sarcomata. My case is clearly exceptional; no one would have any right to diagnose multiple tumours of the breast as carcinoma. I did not dream that both the lumps in my case were carcinomatous; I thought one was carcinoma, and the other chronic mastitis, for the patient was a widow lady of 60 years of age, whose only child was aged 35, and therefore she was a likely subject to have the degenerative changes taking place in her breast which we call chronic mastitis.

If I were asked to give a clinical definition of carcinoma of the breast, I should say a single ill-defined lump in the breast, the lump not being separable from the rest of the mammary tissue. The most important and disastrous thing about carcinoma of the breast, in all the cases in which growth is slow and the prognosis is good, is its painlessness. Every woman who has a mammary tumour fears carcinoma, and what makes her postpone the visit to her doctor is her idea that cancer is a painful disorder, and as she has no pain she assumes that her disease cannot be cancer. An exception to this was the case of the girl whose notes I read you, whose tumour rapidly increased in size, so that in seven weeks it was co-extensive with the breast; in her the stretching of the tissues by its rapid growth was the cause of the pain. With the exception of a very fat woman, the feel of a cancer is distinctly hard. It is of no good to take hold of a woman's breast and pinch it with the fingers so as to try and find the tumour; a lump can be produced in this way in any healthy breast. The breast must be palpated with the flat hand, and the best way to do this is to stand behind the patient, and, passing the right hand over her right shoulder, to palpate the left breast with the palm of the right hand, and similarly to examine the right breast with the palm of the left hand.

Except a mastitis ending in suppuration, I know no other condition than cancer which gives rise to the dimpling of the skin which I have mentioned. But you must be cautious in drawing very definite conclusions from retraction of the nipple. This is a common physiological condition in a large number of nulliparous women; the nipple is normally retracted because it has never been pulled out. It is also a normal condition in many married women who have borne children and yet have never nursed with that breast. Therefore, in seeking to draw any conclusion from retraction of the nipple, it is important to find out whether the woman has had a child, and if she has, whether she has nursed it with that breast. If she has not, be careful about basing a diagnosis of carcinoma on retraction of the nipple.

If the tumour is situated above the nipple, the contraction of its fibrous stroma tends to draw up the nipple to a higher level than that

of the opposite side, as first pointed out by Sir Watson Cheyne. With regard to fixation of the tumour to the deeper structures, you rarely find the evidence is positive when, with the arm upraised or the pectoral put on the stretch, you try to move the tumour along the fibres of the pectoralis major, and so I think this physical sign is of no particular clinical value. If negative, it does not indicate that the tumour is not fixed to the pectoral fascia, which is what you want to know; for when the pectoral fascia is attached to the breast owing to its extensive invasion by the growth, we know that the perivascular lymphatics passing through the pectoralis major, and either draining into the mediastinal glands or into the glands of the axilla, have already been grossly involved.

A rare accompaniment of cancer of the breast is the condition first described by Sir James Paget, known as Paget's eczema. It is well to bear in mind that it is not now regarded as a primary condition, but as an extension of growth along the connective tissues between the breast and the superjacent skin; in fact, that it is a carcinoma cutis. Microscopic examinations of breasts affected by it show that glandular carcinoma is occupying the skin in the same way as the gland tissue itself, so that Paget's eczema is a distribution around the areola of what is more easily recognised as *carcinoma en cuirasse*.

Besides these local evidences of cancer, you will examine the axillary and supra-clavicular glands to determine if any are palpably enlarged, and also the liver for secondary deposits.

Diagnosis of cancer of the breast is a matter of considerable difficulty, chiefly in differentiating it from chronic mastitis. From adenoma cancer is generally easily recognised, for the latter occurs as a movable, well-defined, hard tumour in the breast of a young woman: such adenomata are often multiple and bilateral, which gives much help in diagnosis. As you put your hand upon them, these tumours are fugitive, moving easily in the breast substance; if the mobility of the tumour in the surrounding breast be diminished, then you must be suspicious that the tumour is not an adenoma. The clear boundaries and free mobility of the tumour mean that it is encapsuled, that it is innocent, and, therefore, that it is an adenoma: the lack of good definition and mobility mean that there is no capsule, and this latter feature is the main physical characteristic of malignanc

From chronic mastitis the diagnosis is much more difficult. There is no method by which, as far as I know, one can differentiate a single mass of chronic lobular mastitis from carcinoma, except excision and microscopical examination. The former is a condition which is typically met with in unmarried women between 30 and 40 years of age, or in married women of the same age, who have never borne children. These patients are often neurotic, constipated, and suffer from menstrual disorders, and come to the Out-Patient Department complaining of great pain in the breast, and often in both breasts. The indications of a mammary tumour may be so slight that you may be inclined to call the condition neuralgia of the breast; you may even think the ill-defined induration is compatible with normal breast tissues: it is difficult, especially with the flat hand, to find much in such breasts. The chief characteristic of such a condition is pain, and these patients want relief from pain. This type of chronic lobular mastitis, typically involving the upper and outer segment of the left breast, has been ascribed by Mr. Lane to intestinal auto-intoxication; it is Mr. Lane's opinion that chronic lobular mastitis is the precursor of cancer. In the cases of which I have read the notes to-day, I have called your attention to the situation of the tumour, and I have looked up lately all the cases I have operated upon in the last three years, and found that the majority of the cancerous tumours were in the right breast. Of the cases where it was in the left breast, in only one or two was the tumour in the upper and outer segment.

In chronic lobular mastitis, pain is the characteristic sign, and the indurated areas are often multiple: there are no enlarged glands, there is absence of retraction of the nipple, and absence of local dimpling of the skin. But I am sure that when a woman has a palpable mass of chronic mastitis which is causing her concern, and is not becoming softer under treatment, the right course to adopt is excision and microscopical examination. The other two varieties of chronic mastitis are lobar, of which we have in the Museum a very fine specimen. It was removed in 1897 by Mr. Davies-Colley when I was Surgical Registrar. This breast was sent to the Museum as a specimen of carcinoma, and it remained in the Curator's Room for some time until Mr. Turner and I, in re-cataloguing this section of the Museum, examined this breast microscopically, and we found it to be chronic

mastitis. If you go to look up this specimen you will see a large organ permeated everywhere by abundant fibrous tissue, and in the middle of it numerous small brown-looking cysts, no doubt much enlarged mammary acini, which have become cystic, and their secretion inspissated. You could find no specimen in which you could better demonstrate the fixation of the tumour to the underlying pectoral fascia and pectoralis muscle. There are no golden rules by which lobar mastitis and carcinoma can be differentiated, except that lobar mastitis is always the result of acute infection, and the acute infection, in by far the majority of cases, is that which readily occurs during lactation. So, if there is a large tumour of this nature occupying a considerable segment of the breast in a woman who has not recently, while suckling a baby, suffered from acute mastitis, you must be suspicious of it being carcinoma.

There is only one other condition which it is very difficult to exclude, and that is a similar lobar type of mastitis ("lobar" meaning that an extensive lobe of the breast is involved), due to invasion by tuberculous disease, but compared with cancer it is rare: I do not remember having seen a case of tuberculous mastitis in the last six years. It occurs as single or as multiple, rapidly softening and breaking down foci in one or both breasts of a young woman; the axillary lymphatic glands are early affected.

I do not pretend that there is an easy arm-chair diagnosis of a single mass of tuberculous disease from cancer. I think to try and make plain to everybody that there is nothing difficult in this world is one of the worst services that any man could render to his younger brethren, and, therefore, I readily confess that I know no way in which you can diagnose a single mass of tuberculous disease from carcinoma, except by excising it. That is the bedrock upon which, unfortunately, the diagnosis of cancer of the breast has so often to lie.

I have not much to say about the details of operation for cancer of the breast. The main lines of the operation compared with what it was when I was a dresser are, that whereas the excision of skin is not so wide as it used to be, all surrounding fascial and other connective tissues are more thoroughly removed. With regard to the skin incision, it is adequate to take the tumour as the centre of a circle having a radius of five inches, that is to say, the area of skin removed would be a circle or ellipse having its widest limits ten inches across. The incision should be carried well down into the epigastric angle, and on to the arm, crossing the axilla with a curve convex downwards. The skin should be undermined, removing all the tissues under the skin, except a thin layer of fat not more than half an inch in thickness. The undermining should be carried upwards as far as the clavicle, inwards as far as the sternum, outwards as far as the latissimus dorsi, and downwards as far as the well-marked serrations of the external oblique. The breast, with the subcutaneous tissues, with the subjacent sternal head of the pectoralis major, and with the fascia covering the rectus in its upper third, should be excised. And in all cases in which the tumour is outside the nipple, the serratus magnus, as far as it lies under the breast, should also be removed: this usually means sacrificing the fifth, sixth, seventh, and eighth serrations of this muscle in removing growths outside the nipple. When the sternal portion of the pectoralis major is removed, the costo-coracoid membrane and the axillary lymphatics with the surrounding fat and connective tissue should be removed from above downwards. By defining the axillary vein, where it lies inside the first part of the axillary artery, and removing everything inside it, the lymph paths are cut off from the thoracic cavity and posterior triangle of the neck above, so that if you squeeze any of the lymphatic glands in removal, there is little chance of sending cancerous cells into the mediastinal lymphatics. Whether you remove the pectoralis minor is a matter of no great importance, but it is well when first carrying out this operation to sacrifice this muscle, as it makes the removal of all glands and connective tissue which lie around and behind the axillary vessels easier.

Whenever I have found hard or enlarged glands in relation with the costo-coracoid membrane, I have continued the undermining of the skin upwards above the clavicle, and by dividing the cervical fascia have exposed and examined the cervical glands in the posterior triangle. On three occasions I have by this route cleared the posterior triangle of enlarged glands, shown microscopically to be the seat of cancer cells, and though it is too early to draw deductions from them, two have survived the operation for an unexpectedly long time.

I have no belief in any other kind of treatment as an alternative to operation. I saw, a year ago, a lady with a well-marked cancer of the breast, over which the skin was puckered.

On being told that an operation was essential, she went off to see a doctor, who telephoned to say he thought the prognosis with X-ray treatment was as good as with surgery at the present day. I tried to find out the after-history of this case. She was treated with X-rays for three months, but there was no diminution in the size of the tumour, in fact, later it got larger, and since then she has gone in for other unorthodox treatment. Nor have I yet found that X-rays have had any value at all in retarding or curing recurrences.

The only other case I want to draw your attention to is that of an old woman whose breast was removed in December, 1908, by the usual method for a cancerous tumour which was just beginning to ulcerate. Both pectorals were removed, because the growth was adherent to the pectoralis major. In April, 1910, she complained of constant dull pain about the *right* great trochanter, and though suspecting a secondary malignant deposit, I could find no evidence of one. In January of this year a lump was noticed in her femur, of which I show you an X-ray photograph. I merely show you this to draw your attention to the fact that cancellous tissue of bone is one of the positions in which secondary deposits occur. And if this case is really an example of a secondary deposit in bone, it is very difficult to correlate such an isolated secondary deposit in the femur of a woman with Handley's idea of centrifugal permeation of cancer cells. I am not absolutely sure that there is a secondary deposit in the femur here, but it is clearly a tumour in the femur of a woman who has had her breast removed two and a half years before for what was proved microscopically to be cancer. Her doctor writes to me on April 30th, "She came to see me three weeks ago, and the shaking of the train made the pain much worse. She has been in bed since, and is much easier. I think the swelling is a little less. There is no sign of enlargement of her liver. She is very bright, she is not losing flesh; she eats and sleeps well."*

* Dr. Hugill was kind enough to bring this patient to the hospital in his motor on July 26th, when Mr. Shenton again X-rayed her right thigh, and showed that the bone had given way, and was bent rather than fractured just below its centre at the site of a large secondary growth. She still maintains her flesh and her general health is excellent, but she cannot bear any weight on the limb. Amputation was discussed both in January and on her last visit, but as I could only tell her that its value was largely experimental, the patient refused it.

This case will serve to remind you that secondary deposits from breast cancer may occur in bone, usually the ribs, sternum, and spine being affected. It is very rare to find secondary deposits in bone below the elbows and below the knees, and to emphasise this, Handley gives a drawing in his book with the vulnerable area shaded, and it might be termed the "bathing dress area," outside which secondary deposits practically never occur.

A Case of Pituitary Tumour with Horizontal Hemianopia.

(Case reported by E. M. MAHON.)

SOME time ago Mr. Eason gave a clinical lecture on Tumours of the Pituitary Body,* and discussed two cases under his care, but in spite of this recent lecture, as this condition is so rare, I think the following case may be of interest.

The patient, a well-grown boy of eleven, was admitted under Dr. Hale White for "impaired mental capacity and fits." There was a family history of tubercle, the father had died from phthisis, and a brother and sister were suffering from the same complaint; but in other respects the family history was good. Until last Christmas the patient had always enjoyed the best of health, and was a bright, sharp boy, and had got on extremely well at school, but at Christmas time a change was noticed in him. He began to be drowsy and to take very little interest in anything, and he liked to sit about in a chair all day and do absolutely nothing, except eat. His appetite became truly alarming, and he would ask for food all day long, and yet would never be satisfied. Shortly after Christmas he began to have fits; these were very mild at first, and consisted in the patient becoming suddenly very pale, and especially round his mouth; he would then ask for water, and the fit would pass off and leave him very flushed for a few minutes. The whole duration of the fit was not a minute, and the patient would seem none the worse for it.

The patient got progressively worse, his fits became more frequent and more severe, and during a fit his eyes rolled upwards beneath the upper lid; the duration, however, of the fit did not increase very much. The patient's eyesight became affected, and he was no longer able to see small print. This fact, together with his mental condition and fits, caused the boy's mother to seek medical advice. Another point of in-

*[This lecture will be published in a future issue of the GAZETTE.—Ed., G.H.G.]

terest was that before Christmas the patient was a thin slim boy, and that since then he had grown tremendously fat.

The patient was admitted into Addison on about the 111th day of his illness, and it was then noticed that the boy was well grown for his age, but was abnormally fat, especially about his anterior abdominal wall, and here rolls of fat could be taken in the hand. His head was abnormally large, and the upper borders of the orbits were more vertical than normal, the whole condition suggesting old "hydrocephalus." The patient's vascular, respiratory, alimentary, and nervous systems appeared to be normal, excepting that the tendon reflexes were very brisk, although the plantar reflexes were flexor. The most striking symptom was the boy's marked apathy; he would lie in bed with a vacant look in his eyes, and would not take the slightest interest in things occurring around him. On talking to the boy, he seemed at times exceedingly stupid, and had not the least idea where he was. His memory for things that had occurred some months ago was much better than that for those that had occurred recently; thus, he would get up one day and remember nothing about it next day. He was very slow in all his movements, and walked very badly with his feet wide apart, giving the idea that he did not feel very safe on his legs.

Mr. Eason was asked to see the patient, and on his examination he was struck by the fact that the patient's visual fixation was eccentric, and that his visual axis was abnormal in that his eyes were rotated upwards when he wished to look at anything. This condition suggested that there was destruction of the yellow spot and the lower portion of the retina, and that the eyes were turned upward in order that the rays of light might fall upon the upper healthy parts of the retinæ. These conclusions were confirmed by the perimeter, which showed that only the lower halves of the fields of vision were present. The ophthalmoscope showed primary optic atrophy. The condition was, therefore, one of "horizontal hemianopia with primary optic atrophy." The cause of this condition was considered to be pressure exerted on the lower portion of the optic chiasma by either a neoplasm, an enlarged sphenoidal sinus, or an enlarged pituitary body. A diagnosis of tumour of the pituitary body was made on the grounds that tumours of the pituitary are the commonest cause producing such a lesion in the retinæ. The fact that the boy had become rapidly fat in a short space of time pointed to some destruction of the pituitary body itself.

It was thought that the nature of the tumour was tubercular; but two Von Pirquet tuberculin reactions, done at intervals of three weeks, were both negative. The cornea showed some signs of interstitial keratitis, but a Wassermann test was not performed. In spite of the large destruction of the retinæ, the patient could read large printed letters, but it was with the greatest difficulty that he could spell out the large letters printed on his bed-letter; moreover, he was colour blind.

Extract of the anterior lobe of the pituitary body (gr. ii.) was given to the patient for a week; this seemed to improve his mental condition a little, but made his fits far more frequent. Extract of thyroid gland was then tried, with a similar result. The fits were far less frequent when the patient was taking no medicine—about 6 in the twenty-four hours as compared with 16 while medicine was being given.

The patient had glycosuria on various occasions, but only a very little sugar was present, and could only be satisfactorily demonstrated by the fermentation test. Dr. Hale White considered this to be a vagal glycosuria, due to stimulation of the vagal centre by the increased pressure of cerebro-spinal fluid.

The patient got progressively worse while he was in the hospital; his hands became more and more spade-shaped, which supported the diagnosis of pituitary tumour; his knee-jerks became brisker and his plantar reflexes became extensor, this being especially well marked in the right foot. The fits became much more severe, and caused the boy considerable distress; at the onset of a fit the boy would scream, become very pale, and then very flushed; his eyelids and the right side of his face showed marked twitchings. The whole duration of a fit was about a minute, and the boy was not very fatigued after an attack, and would soon sink back into his old lethargic condition.

During the 11 weeks the patient was in the ward his temperature was generally elevated, the average being about 99·2°; but sometimes it was as high as 100°, and sometimes as low as 96°. As there seemed very little chance of the boy getting well, he was taken home by his mother; so it is improbable that the true condition will ever be demonstrated.

Nursing News.

Matron's Office.

On June 8th, Nurse Mutford was appointed Head Nurse in Addison ward.

On June 17th, Nurse Rousiano left the Hospital on completion of her three years' training, and Probationer Naylor was appointed to succeed her as Head Nurse in Lydia ward.

On June 27th, Nurse Lay was appointed Head Nurse in the Theatres.

On July 20th, Nurse Holdsworth left the Hospital on completion of her three years' training, and Probationer A. Prince was appointed to succeed her as Head Nurse in Astley Cooper ward.

On July 31st, Nurse M. Fraser left the Hospital on completion of her year's appointment as Staff Nurse. Nurse Illingworth (Head Nurse in Addison ward), who completed her training on July 14th, has been appointed to succeed Nurse Fraser as Staff Nurse in the Isolation wards.

On August 14th, Nurse Shepherd left the Hospital on completion of her training, and Nurse Du Boulay has been appointed to succeed her as Head Nurse in Naaman ward.

On July 1st, Sister M. Gardner, Home Sister since October last, left the Hospital to go abroad. Miss E. J. Lucas, the Second Home Sister, has been appointed to succeed Miss Gardner as Home Sister.

The following Probationers were successful in passing the Probationers Examination in Surgery:—*First Class:* Probationers Ames, Bott, Brack, Blyth, Eagle, B. Evans, E. M. Fletcher, Foxon, Gerrard, Groom, Hockin, M. E. Hope, G. Jones, Macdonald, Malkin, G. Moore, Payne, Rawson, B. M. Scott, Sinclair, E. V. Smith, Snelling, Sullivan, Tyers. *Second Class:* Probationers Aspelin, Bagnall, Ball, Batley, Bevan, Bishop, Bollard, F. L. Brown, F. Brooks, Coulton, Cromar, Davies, Dickson, Dodson, Drower, Druce, Edwards, W. Evans, Fawkes, E. de V. Fletcher, Foster, Garner, Garvin, Gerrard, Gilkes, Gillett, Griffith, Gwilliam, Hawkins, Hansen, E. C. Hope, James, Jenkins, Johnson, A. Jones, S. Jones, Jordan, Keegan, Kelcey. Leggoe, Macintyre, McComas, McElroy, Maher, Mangelsdorff, Mitchell, Mott, Müller, Openshaw, C. Pearson, J. Pearson, Pike, Poole, Roach, Roots, Sawyer, Sherrard, M. Simpson, Stones, Thorpe, Tonks, Twose, Vernède, Wacher, Wade, Warner, West, Willett, Wilson, Witchell, Wittrick, L. Wood.

The following Nurses and Probationers have been successful in passing the Examination of the Incorporated Society of Trained Masseuses:—Nurses M. Fraser, Moriarty; Probationers Beardshaw, Phillips, Probert, Randles, and Sime.

India!

Rains, heavy beyond their wont, have made the sullen Jumna rise and flood the low-lying villages along her banks; the fierce rays of a September sun have converted these inroads of the river into pestilantial swamps, and now fever spreads like wild-fire through the countryside, numbering its victims by the thousand and leaving behind a trail of weak and exhausted survivors.

The harvest stands uncut for want of reapers, the merchant's office has but half its staff; at night the air is thick with the heavy reek of innumerable pyres. Rich and poor, none are exempt, and I, too, soon fall a victim to the scourge.

"And he lies as the scorching winds blow
Recollecting old England's sea breezes,
On his back in a lone bungalow.
And the slow-coming darkness repining,
How he girds at the sun till it sets,
As he marks the long shadows declining
O'er the land of regrets."

* * * * *

"Amira, but why weepest thou, seeing that it is I who am racked with the pains of fever?"

"Without doubt, sahib, what you say is true, but I am frightened that if you die the Sirkar will bind me in chains, or send me across the black water on suspicion of having caused your death."

"Fear not, Amira, for still I hope that once again at least I shall see Beliat before I die; but, for the present this matter must be considered, of how I am to reach the village, where I sent my tents, my servants and my baggage, bringing with me here but blankets and a little food as you advised?

"Go, I must, for it is now three full days since the fever came suddenly upon me, as we toiled homeward up the mountain side, after shooting the Thar that fell down on to the rocks by the river below—so suddenly did the fever take me that, as you know, I had to lie and shiver beneath a rock while you went to fetch my blankets from the Girjar camp and returned risking your life on the steep slopes in the darkness.

"Day by day as I have lain here my body is slowly burnt away for want of the medicine which, alas, I brought not with me here, thinking I had left all my fever in the plains below. Arrange, and that quickly, for my journey hence."

"Huzoor, I am your slave, and leaving now I will return no later than to-day at noon, bringing with me from the village below eight strong Girjars with a charpoy cunningly bound on two strong poles."

"Then go."

* * * * *

Down, down along the brink of deep precipices with streams brawling at their foot; down, down amongst the beetling crags where the eagles nest; down, down through the closely serried pines; down, down over soft moss and slippery pine needles, past lichen-covered boulders to the rice fields in the valley beneath.

* * * * *

A night of wakefulness, of tossing to and fro to ease the aching limbs, of uneasy slumber, of lonely vigils shared only by croaking frogs and droning mosquitos.

* * * * *

An early start at the false dawn, when even down in these deep sheltered valleys the gently-stirring air

is keen and chill, while the white mists lie dank in the hollows of the hills.

Four study villagers seize the poles and heave my litter up on to their shoulders. Away they shuffle over the stony bed of the little stream that waters the rice fields, along the soft miry path to the track that winds beside the river. Hour after hour goes by with no change, but that the clouds have risen to the mountain tops and the sun's rays beat fiercely down on my unprotected head.

A pleasant change, as the path winds through woods green and restful to the eye, but ah, how they make one's heart ache with memories of that country so far, far away! On the path goes over sand and stones, up steep zig-zag paths, down over rickety staircases cunningly constructed on the bare rock face.

Here the descent is so steep that I am tied to the charpoy to prevent my slipping head foremost into the foaming torrent beneath, while there a rickety wooden bridge comes into view, bare of rails, with holes that gape in its rotten flooring.

It is past noon before we reach the village, when fresh coolies are obtained, as quickly as may be, for my one idea is to reach camp as speedily as possible. A small crowd—men, women and children—assembles to gaze from a distance on the sahib who, of a surety, must be grievously ill to travel in such a fashion; a sahib so ill that he cannot even curse the village chowkidar for his interminable delays! Forward again, forward; towering mountains, whose snow-clad summits seem to pierce the sky, beetling cliffs, whose precipitous sides seem ready to fall and crush us as we skirt their foot, leafy forests, bare hillsides, wild wastes with no traces of human habitation—all their beauties are but bitter ashes in my mouth.

* * * * *

I start from an uneasy doze, as my litter is placed on the ground, to hear the familiar voices of my servants, and feel my hands licked in welcome by my dog, that fond friend, faithful companion of my wanderings. Already half delirious with the oncoming fever, I am lifted off on to my bed; by my side crouches Mayat, the khansamah, a friend indeed now, indifferent cook though he may be.

"Hell, but the shadow of a soul on fire!" Ah, but the old tent-maker's words apply but too truly to the torments of fever.

The tent walls recede, and everything becomes dim; all the noises around are swallowed up by the monstrous drumming of the pulse that beats remorseless in my brain, louder and louder, till it seems like to split my very skull; fiercer and fiercer grows the fever, as one tosses panting and gasping for breath. fever that parches one's lips and consumes one's being till the desire for relief becomes almost intolerable.

"Mayat, Mayat, bring ice, for my whole body burns."

"Sahib, your tent is under the walnut trees, and we are far below the mountain snows. Allah grant that your end is not yet decreed."

His voice sounds faint; the dusky forms near by and the tall trees seen dimly in the gathering gloom without whirl round and round, everything becomes black, and then I sink down, down into unfathomable depths.

* * * * *

Report of a Medical Board assembled at Lahore: "We do hereby certify that according to the best of our professional knowledge, after careful personal examination of the case, we consider the health of —— to be such as to render leave of absence for a period of one year absolutely necessary for his recovery."

H. W.

Correspondence.

To the Editor of Guy's Hospital Gazette.

The Insurance Bill.

Dear Sir,—I should like to be allowed to make some comment on your remarks under "Passim" in the last number of the Gazette on the Insurance Bill. The writer speaks of certain amendments as "placating the medical profession." I venture to dispute this statement entirely. The Insurance Bill was introduced with nothing less than an insult to the medical profession, for the profession was simply ignored by the Chancellor of the Exchequer when planning his Bill. Yet we are now told by "Passim" that "medical men will lend the full weight of their humanity to its support."

Without hesitation I say that doctors of every position have always, and will always, exercise their humanity towards their patients, but we exercise it in our own way, and not as the cheap instrument of a Government department. The Bill was not sought by the medical profession, is not welcomed by the medical profession, and is not going to be accepted as it now stands by the medical profession.

Whoever is responsible for the "Passim" notes appears to have ignored the deliberate vote of the members of the British Medical Association throughout the country on the question of the income limit. The members of our professional union have pledged themselves not to attend, under the terms of the Bill, anyone with an income of over £104 per annum. "Passim" appears to ignore this when speaking of "placating the medical profession." May I ask in whose name does the Guy's Gazette speak when it speaks thus? Does it voice the general practitioners of the country? Certainly and indubitably no. Does it voice the opinions of the consultants, who naturally have the interests of their former pupils and friends at heart? Here again I think

I may certainly answer no. From what section then comes this extraordinary pronouncement, clashing with the rights and interests of medical men? Can it be that there are certain members of our profession who think they are outside all worldly considerations, who ignore what professional union means, and who think that from their obscure caves they can dictate the policy of our great profession?

Medical men need no one to remind them of their "humanity." It is always there, though the exercise of it is not shouted from the housetops. Let us exercise our philanthropy as of yore, but in order at least that we may be able to do so, let us not allow ourselves to be cheated merely to catch votes in the interests of a political party.—I am, your obedient servant,

FREDERIC VICARS, M.D. Brux.

Hindhead,
August 9th, 1911.

Some Nursing Notes.

Among the large number of past and present nurses whom our Gazette should interest it is thought that occasional articles on ward experiences may be of value to some, and I have been asked to amplify certain points of treatment mentioned in a paper published in an April number of this year.

When we always live behind the scenes the criticism of those who make a first appearance upon our hospital stage is helpful, and should be suggestive.

A writer in a recent number of the *Ethical World* details his thoughts upon, and practical acquaintance with, life as he found it in a surgical ward of a large hospital.

The humanity of patients and workers alike impressed him. That we should strive for, in spite of our somewhat artificial life. He found the enforced waiting for his operation a great trial, and suggested that patients in the pre- and post-operative condition should not be housed in the same ward.

He also thought the tone of general cheerfulness somewhat unnatural. It was "bad form" he found to be depressed, and the note was rather forced. Perhaps so, but the *noblesse oblige* aspect works for the good of the greatest number in any conditions of difficulty.

To turn to more practical things.

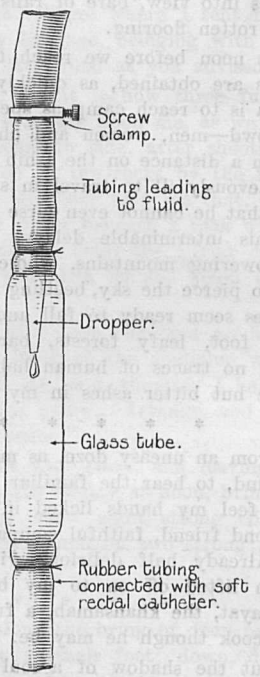
This hot season is bringing into hospital a large number of babies suffering from diarrhœa and vomiting, as all nurses working in poor districts well know.

Their treatment may include a stomach wash-out, for which a small soft rubber catheter and glass funnel will be required. Infusion into the tissues, either the axilla or the groins, of normal saline—boiled water to which 1 oz. of sodium chloride (salt) is added to each pint.

A hollow needle, length of tubing, and a glass pipette inserted into the vessel containing the saline can give a baby a continuous infusion as easily as the more elaborate apparatus we use in hospital.

For a colon wash-out the "two-way" tubes which can be fixed up to run continuously are very useful. They can be procured in all sizes, and have been used most successfully for older children and adults to bring down high temperatures. A soft catheter has a length of rubber tubing attached to it by an inch or two of glass connection; this is connected with the vessel or funnel of fluid. Along the catheter from about four inches from the "eye" for about sixteen inches a second soft tube is joined, and it is continued by some ordinary tubing and glass connection to conduct the result of the wash-out to a vessel on the floor. A practical point overlooked when these tubes were first made is that the "bore" of the tube for the return of the wash-out should be at least two sizes larger than that of the catheter that supplies the fluid, otherwise the fæcal débris and mucus soon blocks it. (Fig. 2.)

Further treatment for these children may be a dose of castor oil and boiled water, or albumen water only, by mouth.



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Saline Indicator.
Fig. 1.

It should be remembered that during hot weather healthy infants may be given water by bottle or spoon with great advantage between their "feeds," and all little children are really grateful for "drinks."

To counteract the state of collapse hypodermic injections and mustard baths, and also brandy packs are given. The method for the latter is the same in both cases, but one children's hospital orders the water at a temperature of 70° F., another at 99° F..

Wring out a towel or draw-sheet in water to each pint of which one ounce of brandy has been added. Roll the child in this, leaving the arms out. Lay on a mackintosh and fold the mackintosh over; cover with several small blankets; put hot-water bottles to sides and feet; take the temperature hourly. After three hours take the baby out of the pack, dry with a soft warm towel, and, if ordered, repack.

Two special points for a nurse to keep in mind in nursing these children are: firstly, that warmth is most important. The legs should be wrapped in wool, and wool or a wide flannel binder applied to the abdomen. Secondly, that the diarrhœa stools are very irritating, and may entirely skin the buttocks in a few hours.

Pure olive oil and wisps of wool should be used instead of ordinary soap and water for the back, or it may be gently "dabbed" with warm boracic lotion and bits of wool. If possible, use sanitary napkins that can be burned after use.

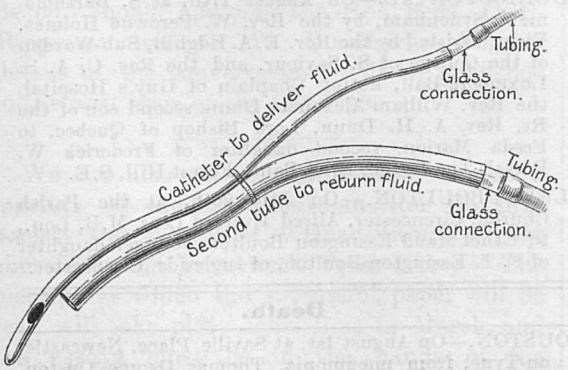
While writing of rectal treatment I should like to mention a very simple and inexpensive invention of Dr. Douglas Laurie:—

A Saline Infusion Indicator.—It is invaluable when giving continuous rectal saline, and can also be used for wash-out purposes and infusion into the tissues.

To quote from an abridged extract in the *British Medical Journal*, Dr. Laurie says:—"I incorporate an indicator in the rubber tubing, close to the reservoir of fluid. It consists of a glass tube so constructed that it encloses a volume of air which neither escapes upwards or downwards. As the saline flows, drops are formed at the end of the inner tube of such a size that each drop is, approximately, a minim. The number of drops per minute, divided by eight, gives the rate in ounces per hour. I place a small screw clamp above the indicator to regulate the flow. Thus, 160 drops per minute will give the patient one pint of fluid in the hour."

This simple instrument has been found most useful in ward treatment, and far superior to our old method of partly clipping the tubing to try to regulate the flow.

The indicator and screw clamps can be procured from Messrs. Down Bros., Ltd., for 9d. each. (Fig. 1).



Two-way Wash-out Apparatus.

Fig. 2.

The indicator can be most simply added to any existing apparatus. Remember that it must be within a few inches of the can or glass vessel holding the fluid and must hang straight.

From your vessel allow ten inches of tubing, then insert your indicator, then, say, thirty inches of tubing, connected by an inch of glass tubing with a No. 16 Jaques' catheter makes a good workable instrument for giving an adult rectal salines. A tin douche-can to stand on the locker or hang by the bed is a convenient reservoir.

Unless otherwise ordered, fluid at 99° F. of heat seems to be retained best.

F. A. S.

Lydia Ward,
August, 1911.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

The Refraction of the Eye. (Third Edition, pp. 228). By Ernest Clarke. (Baillière, Tindall & Cox.) 5s.

This little book aims at setting forth in a practical manner all that it is necessary to know in connection with the refraction of the eye.

The first four chapters deal with such preliminaries as the optical properties of lenses, prisms, and of the normal eye, and with the phenomena of conveyance and accommodation.

Chapter V. is devoted to the ophthalmoscope, and the theory of retinoscopy is here fully explained.

In the following chapters the various abnormal refractive states are more fully dealt with. The importance of unrecognised hypermetropia as a cause of eye-strain is emphasised, and full directions for the treatment of this condition at various ages are given.

The hygienic on preventive aspect of myopia is carefully considered.

In the chapter on astigmatism stress is laid on the importance of an *exact* correction of the error, even though large, as soon as possible, and the author points out that unless this is done there is a likelihood of introducing an element of eye-strain which was not present before. He holds that even ·12 D of astigmatism may cause symptoms.

In the chapter on presbyopia a chart of the accommodative power at various ages is shown, based on the author's own observations, which agrees closely with that of Duane.

Chapters are devoted to anisometropia and to the question of eye-strain, the various symptoms of the latter being fully set forth. Heteroplasia and strabismus are also considered, and the book concludes with an appendix giving the vision tests for the various services which should prove useful to the general practitioner.

The book is well printed and is singularly free from mistakes. It should prove useful to the student or practitioner who is just beginning refraction work.

Dental Materia Medica. By Charles W. Glassington (J. & A. Churchill). Price, 6s.

This book gives an account of the various medicinal agents used in dental surgery and their mode of employment. With some reservations the information given regarding these substances is of a very useful character, but from the point of view of the dental practitioner and student their arrangement as inorganic, synthetic and organic seems a very artificial and aimless classification, the merits of which may be judged from the fact that absolute alcohol and adrenalin are classified as synthetic, while benzoic and tannic acids come under the heading of organic substances.

At the outset some few pages are devoted to general directions as to prescribing, but the pattern prescription (p. 6) unfortunately contains an overdose of ammonium chloride. This may have been intentional, but for that reason attention should have been called to the fact. Then, again, on p. 11, tinctures are said to be given in doses of ½-2 fluid drachms and pills from 5–10 grains. Apparently the author has not observed that these doses are those of the B.P., 1885, and that they were altered in the edition of 1898. Other similar errors occur.

The prescriptions illustrating the use of the individual drugs are well chosen, but are written in English. Exception may well be taken to this on the ground that a certain type of patient is very apt to try and buy pennyworths of the separate ingredients and attempt to mix them without regard to the proportions suitable, and although the Latin names may not be unlike the English ones, there is something more forbidding in a Latin prescription.

Too many proprietory preparations are named considering the fact that the equivalent formulæ of these are published and well known.

Useful chapters are devoted to local and pressure anæsthesia and to the application of bacterio-therapeutics to dentistry. On the whole this useful book can be commended, but the pity of it is that the proofs have not been read more efficiently.

Appointments.

W. H. Bush, L.S.A., to be District Medical Officer, Wantage Union.

Harold Chapman, L.D.S. Eng., D.D.S. Penn., has been appointed Dental Surgeon to the London Hospital.

J. W. Hodgson, M.D., C.M. Aberdeen, M.R.C.S., has been appointed Hon. Radiographer to Exmouth Cottage Hospital.

Harold Maurice, L.D.S., from Hon. Assistant Dental Surgeon, to be Hon. Dental Surgeon, Brighton, Hove, and Preston Dental Hospital.

R. M. Wormald, L.D.S., to be Hon. Assistant Dental Surgeon, Brighton, Hove, and Preston Dental Hospital.

W. J. Wormald, L.D.S., to be Hon. Dental Surgeon to the Brighton, Hove, and Preston Dispensary, Northern Branch, *vice* J. R. D. Ditch.

G. P. Pollitt, L.D.S. Eng., D.D.S. Penn., has been appointed Dental Surgeon to the London Hospital.

G. A. Wright, F.R.C.S., has been appointed Hon. Consulting Surgeon, Manchester Royal Infirmary.

Royal College of Surgeons of England.

The diploma of D.P.H. has been conferred on Lieut.-Colonel W. H. W. Elliot, I.M.S., D.S.O., M.B., M.R.C.S., L.S.A., and the Licence in Dental Surgery on O. B. Townshend.

Change of Address.

Lawrie, H. McGavin, F.R.C.S., from 6, Mansfield Street, W., to 32, Weymouth Street, W.

Staff-Surgeon H. R. H. Denny, R.N., from H.M.S. *Vivid* to H.M.S. *Carnarvon*, Devonport.

A. C. Jordan, M.D., from 14, Weymouth Street, to 11, Bentinck Street, Cavendish Square, W. (Telephone 5340 Mayfair.)

J. H. Roberts, B.A., M.R.C.S., L.R.C.P., from Cyprus Lodge, Rookly, I. of Wight, to 241, High Street, Poole.

A. C. Schulenberg, from Lichtenburg to P.O., Box 21, Ventersdorp, Transvaal.

Angus Wylie, M.A., M.B., B.C., from Georgetown, British Guiana, to 3, Regent's Park Road, London, N.W.

Surgeon D. A. Mitchell, R.N., from H.M.S. *Terrible*, to H.M.S. *Jupiter*, Stokes Bay, Portsmouth.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Birth.

DAWSON.—On August 13th, at Maiden Newton, Dorset, the wife of Reginald B. Dawson, M.R.C.S., L.R.C.P. (*née* Fraser), of a daughter.

Marriages.

DUNN—PORTAL.—On August 17th, at S. Bartholomew, Sydenham, by the Rev. W. Perowne Holmes, Vicar, assisted by the Rev. E. A. Edghill, Sub-Warden of the College of S. Saviour, and the Rev. C. A. S. Luxmoore-Ball, Acting Chaplain of Guy's Hospital, the Rev. William Alexander Dunn, second son of the Rt. Rev. A. H. Dunn, Lord Bishop of Quebec, to Freda Marion, second daughter of Frederick W. Portal, The Lodge, Eliot Bank, Forest Hill, S.E.

LEES—BOULTON.—On July 26th, at the Parish Church, Cirencester, Alfred Everard Lees, M.B. Lon., to Ethel Maud Essington Boulton, younger daughter of F. T. Essington Boulton, of Ingleside, Cirencester.

Death.

OUSTON.—On August 1st, at Saville Place, Newcastle-on-Tyne, from pneumonia, Thomas George Ouston, F.R.C.S., aged 42.

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXV., No. 605.] SEPTEMBER 2, 1911. [SIXPENCE.

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Passim.

ALL Guy's men will hear with deep regret of the accident which befell Lord Goschen while motoring recently. Owing to the left rear wheel coming off, the motor ran up a bank and overturned. Lord Goschen sustained a dislocation of the elbow-joint, but his daughter and the chauffeur fortunately escaped with a shaking. We would express to his lordship our sympathy, and wish him a speedy recovery.

THE Physical Society will hold a conversazione on Friday, October 6th, at 8.45 p.m., on the occasion of the opening meeting of the session. All present and past Guy's men are cordially invited. The conversazione will be preceded by a dinner in the College at 7.15 p.m. Those requiring tickets for the dinner (price 3s. 6d.) should apply to the Hon. Secs., C. H. Rippmann and G. W. Goodhart. Further details of the conversazione will be published in the next issue of the GAZETTE.

WE are also asked to announce that at a meeting of the Presidents of the Physical Society the subject of "Head Injuries" was chosen for the Treasurer's Prize Essay. The meeting at which the successful paper will be read will take place some time in March, and the essays must be in the hands of the Secretaries by the middle of February. Exact dates will be announced later.

IN our Correspondence columns will be found a letter from Dr. Beddard protesting against our "summons to the profession to support the National Insurance Bill." Dr. Beddard is opposed to the Bill mainly because he apparently does not believe that it will offer "the greatest security with the highest interest for the money which the Nation is asked to invest." The use of the superlative is, of course, totally unjustifiable, because any measure can be but the best which is obtainable at the time. We would, however, emphatically claim that the Bill does offer *good* security and *good* interest. Dr. Beddard appears to us to consider the Bill solely in regard to that part of it which deals with medical benefits. Here we have maintained that the profession must adhere to the resolutions of the British Medical Association, many of which have already been incorporated in the Bill. In regard to the rest of the measure, we should have thought that Dr. Beddard's experience at Out-Patients would have convinced him of the need for some form of compulsory insurance against sickness. The amount of incapacity and disease which owes its origin either to the impossibility of the wage earner taking adequate rest, or, if he is compelled to leave his work, to his inability to provide for his dependents, is tremendous. The insurance of an adequate rest after child-birth, again, will do an incalculable amount of good; while the fact that insured people will be able to take medical advice at the beginning of their illness, instead of waiting until it is thoroughly

developed, is the first step towards the more general practice of prophylaxis. These are some of the points which make up the interest; the security depends upon the fact that "the general principles of the Bill" have met with an almost unanimous welcome. We commend to our correspondent the following passage which appeared in *The Manchester Guardian* for July 27th. The italics are ours.

> "If medical men would *read the Act for themselves*, and compare it with similar Acts in other parts of the world, and particularly if they would make some attempt to become acquainted with the conditions under which their colleagues are at the present moment labouring where such social legislation, or modifications of it, has been introduced, they would find little that is objectionable in the Bill, but on the contrary much that is cordially worthy of support by everyone who has at heart the welfare of the community."

Dr. BEDDARD, again, hopes that we are not trying to influence opinion for any such "futile reason" as sentiment. We would point out that every good measure of social reform is, and must be, merely organised sentiment. It is no doubt true that sentiment is not a safe basis for pure business, but the great objection to the "business government" so sedulously advocated by a notorious contemporary is that a State, in catering for the welfare of its inhabitants has often to ignore strictly business principles in order to give play to the sentiment which conduces to the ultimate good of humanity. Far from looking on sentiment as a "futile reason," we admit willingly that we are very largely influenced by it in our advocacy of the principles underlying the Bill, because we believe that a generally held sentiment is a far surer indication of what is needed than any arm-chair theory or criticism.

THE terrible incidence of summer diarrhœa in children, and the hopelessness of Out-Patient treatment in many of these cases is within the knowledge of everyone who has worked in the surgery during the summer. Most of these unfortunate babies live in houses where efficient nursing is absolutely impossible, in spite of the very best of intentions on the part of most of the mothers. It seems a pity that now that such excellent efforts have been made to lower the appalling infantile death-rate in other directions, some steps cannot be taken to meet this annual scourge. We do not intend for an instant to suggest that anything should be done to limit parental responsibility, but we do feel that the State, which calls repeatedly and insistently for an increased birth-rate, should make an effort to preserve the lives of such children as it already has. The treatment of summer diarrhœa in children is largely, almost entirely, a question of nursing, and the response made by babies to such efficient nursing is often as surprising as it is gratifying.

AN organised state campaign against infantile diarrhœa and its more general recognition as a potentially contagious disease, would gain more lives to the State than any amount of falling birth-rate propaganda, while the money required to carry out an efficient scheme would be extremely small in proportion to the good effected. No elaborate hospital installation is needed to treat these cases, which could be adequately looked after in any form of temporary premises. We would suggest, for example, that the existing empty small-pox hospitals might well be used in this way, since they could at any moment be cleared in case of an emergency. We do not doubt that with improved housing, etc., the death-rate from summer diarrhœa, which is one of the symptoms of insanitary living, will fall, but in the meantime, both in the interests of humanity and of itself, the State would do well to take the matter in hand.

A CORRESPONDENT whose letter will be found in the present issue, suggests that a column of the GAZETTE should be devoted to "Notes and Queries," and that the Editor should endeavour to answer, or might, we suggest, to obtain an answer, to questions put to him. While quite willing to try and find a solution to difficulties which may be brought to our notice, yet we feel that the GAZETTE is hardly a suitable place in which to attempt either diagnosis or treatment.

In the first place it is obviously impossible to offer an opinion, or at any rate an opinion worth having, about a case without seeing it, and in the second place any form of consultation by correspondence is not only unfair, but mostly fruitless. With these reservations, however, we shall be pleased to consider any questions which our readers may put to us, and even if we are unable to answer them we can at any rate publish them.

In "Passim" of our last issue, we commented on the value of directions as to personal hygiene in the treatment of Out-Patients. In no other disease is this perhaps so important as in syphilis. We are continually endeavouring to obtain a history of past syphilis as an aid to diagnosis, and as continually casting doubts on the veracity of our patients when we fail to obtain one. Yet a large number of patients, excepting those attending the special department, leave our hospital without ever being told that they have it. This does not perhaps apply so much to syphilis in its primary stage, but the secondary and tertiary lesions, which are in every way as important, are but seldom explained to the patient. It may, perhaps, be argued that it is not the medical man's business to give directions in such matters as marriage, but the amount of misery which is caused often by mere ignorance on the part of the patient is such, as to make it advisable to waive such purely ethical objections. Further, it amounts to little short of criminal neglect, that a syphilitic patient should be given medicine, as is quite often done, without any directions as to the length of time for which treatment, to be effective, should be continued.

Time, and the already strenuous routine of Out-Patients, makes it impossible to give lengthy verbal instructions to the numerous syphilitic patients with whom we meet. This might, however, easily be remedied by a short printed form, as is already in use on infant feeding, containing the main points to be observed in attempting to make the patient less dangerous to himself and to those with whom he comes into contact. There are, no doubt, a number of cases in which it is desirable to withold the nature of his or her illness from the patient, but even in these cases, and they are few, there is no reason why the elementary principles of hygiene should not be observed. We make no apology for introducing this subject into Passim, because we feel strongly that the only real prophylaxis of syphilis lies in a thorough understanding, both by the profession and the laity, that it is a contagious disease and must be treated as such.

We publish a letter from Mr. Barber which raises again the subject of the new Out-Patient Regulations. We re-open the question with pleasure because we feel sure that efficiency in the Out-Patient Department, which is the unanimous aim of everyone connected with the Hospital, can only be obtained if those who work there do so without any feeling that too much is expected of them. The principles underlying the new regulations will be admitted by everyone who troubles to think carefully about the matter, to be both good and necessary, but it is open to serious question whether four men can cope satisfactorily with the additional work which they entail.

Contrary, perhaps, to general opinion, the average medical student and newly-qualified man is by no means averse to hard work, and we have no doubt that many would be willing to carry out, to the best of their ability, what is asked of them. The point we would raise, however, is rather the advisability of asking it, since an overworked intelligence is as useless in the surgery as no intelligence at all. We published in our issue of July 22nd, an alternative scheme to the one now brought forward, and would venture to insist again on the value of the one day's holiday a week for which it provides. Knowing the great interest which this whole question has aroused in the hospital, we shall welcome any letters, either from the staff or the men, in order that the matter may be considered from all points of view.

All who have worked in the eye wards will hear with regret of the accident which happened

to Miss Daniels, Sister Ruth, while cycling recently. She is, we understand, progressing favourably, and it is hoped will be able to return to duty in a month's time.

WE would remind club secretaries and others that the Students' number of the GAZETTE will appear on September 30th. All matter intended for insertion in that number must reach the Editor not later than September 18th. It is hoped that those in charge of the various clubs and departments which make special appeal to new men will endeavour to make their accounts accurate, and, if possible, interesting in order that the Students' number may, perhaps, serve the purpose with which it is published, namely, that of introducing to the inner life of our hospital those men who are entering it for the first time.

THE following note was recently received in the Light Department from a patient suffering from alopecia areata:—

Dear Nurse

Will you kindly ask Mr. Iredell if he would give me some more liniment for my head has I cannot come myself. The young woman that lends me her hair has gone away. I have nothing to put on it, and I do not like to come out.—Yours,

C — P—.

Papers by Guy's Men.

C. A. Basker, M.B., B.S. Meningitis following Measles.—*Lancet*, 19th August, 1911.

F. E. Fremantle, M.B. Oxon., F.R.C.P., F.R.C.S., D.P.H., County Medical Officer, Hertfordshire. Abstract of a Lecture on Housing and Town Planning. Delivered at the Medical School, St. George's Hospital.—*Lancet*, 19th August, 1911.

Leonard J. Kidd, M.D. Adherent Fibres in Ventral Spinal Roots (preliminary communication).—*British Medical Journal*, 19th August, 1911.

H. Stott, M.B., B.S., Lieutenant I.M.S. On the Possibilities of Two Distinct Varieties of Relapsing Fever Spirochœtal Infection Existing in India.—*Indian Medical Gazette*, August, 1911.

S. M. Wells, F.R.C.S.E., L.M. A Fatal Case of Melœna Neonatorum.—*British Medical Journal*, 26th August, 1911.

A Note on the Treatment of "Summer Diarrhœa."

BY DR. H. C. MANN.

1. Far more fatal cases are due to collapse, which is the result of excessive loss of fluid, than to toxæmia.

2. *Never* give the preliminary purge, which is the usual treatment for a diarrhœa resulting from errors of diet or from bad food. Many of these children have had four profuse evacuations in so short a time as one hour; further purgation, therefore, is unnecessary and dangerous.

3. Tell the mother in the Surgery to give the diapers a preliminary rinse, then to pour boiling water upon them and leave them before washing. If *possible*, a subsequent rinse with ether soap or with methylated spirit to which ether has been added is a very good plan. The use of carbolic lotion as a disinfectant for the linen may give rise to dermatitis of the sensitive skin of the perineum.

4. When the buttocks are red and inflamed, I find zinc ointment better than anything else, but if there are any sore, raw surfaces there is nothing so good as a quinine ointment, for which Sir Cooper Perry gave me the formula some years ago. Quinine (the alkaloid) is dissolved in oleic acid by warming on a water bath, and then made up with diachylon ointment. This ointment is most useful for all forms of bed-sore.

5. In the ward: treat the child as a typhoid case. Have a lysol bowl by the bedside for the fingers of anyone who touches the patient. Have separate bottles, feeders, and linen, marked as you would for a typhoid case. There is nothing so unfortunate as to have the trouble spreading among post-operative cases, or among children who already have broncho-pneumonia. With such there is a high mortality.

6. *Opium* is the drug to give from the very beginning of the attack, for this lienteric diarrhœa must be checked at the ealiest possible moment. Very much has been written, and rightly, upon the dangers of giving opium to babies and small children, but provided that the entry of air is good, the bronchioles dry and no laryngeal obstruction is present, no more especial caution is necessary than in the case of other

powerful and useful drugs. Lung trouble is a very rare complication of summer diarrhœa, and opium, therefore, is not to be withheld.

Give directions that the baby is never to be awakened for medicine and there will be no difficulties.

The mixture which is mostly used in the Guy's Surgery is the mistura bismuthi astringens. This contains 1/40 grain of powdered opium in the drachm; there is also some glycerine of tannic acid, which to my mind is a disadvantage, as I believe the latter gives a baby indigestion.

I prefer to give the opium in the form of morphia, as the liquor morphinæ hydrochloridi, and for the first half dozen doses combined with bismuth, especially if there is sickness. Thus—

℞ Carbonate of Bismuth ... ... gr. iv.
Bicarbonate of Sodium ... ... gr. iii.
Solution of Morphine Hydrochloride ... ♏ ii,
Compound infusion of Orange to make one drachm.

A baby of three or four months can be given a drachm dose every three or four hours whenever awake. If the child is asleep when the medicine is due, none is given until he or she has been awake for fifteen minutes. These simple directions I find convenient with the usual type of Bermondsey parent. It is well to remember that the addition of mucilage or powdered gum to mixtures containing bismuth salts is liable to "cake" them, making indiffusible masses, but compound infusion of orange suspends bismuth compounds without making them coherent; it is, therefore, by far the best vehicle for such prescriptions.

After a few doses as above, I give the morphia with creosote. Thus—

℞ Creosote ... ... ♏ ss, or j.
Castor Oil ... ... ♏ v.
Solution of Morphine Hydrochloride ... ♏ ii.
Mucilage of Acacia ... ... ♏ v.
Aromatic Elixir (B.P.C.) ... ... ♏ x.
Water to make one drachm.

A child of the same age can be given the same dose with the same precautions. This mixture is very useful. It is palatable, and children take it readily. The mother soon reports that the motions are less foul and less frequent, and in my hands creosote given in the above way has been more successful than any other similar drug. I have tried petroleum emulsion. Bismuth salicylate is broken up and absorbed far too quickly to be of any service, though it is useful in simple cases of mucous gastritis. Mercury in the form of grey powder is recommended by many people as an "intestinal antiseptic," but I question its value in summer diarrhœa, and this has not been without much trial. Calomel I never use for children under any circumstances, it is far too uncertain in its action; you will find it useful for three children, and with two others—you will wish that you had never employed it. Even with adults, a correct dose for one patient may prove to be a severe gastro-intestinal irritant for another. That is a "point"—one of many little tips on medico-surgical details, which Mr. Symonds taught me in his wards when house-surgeon. He said then, that about once every year there was a case of calomel poisoning in either Job or Lydia. The explanation may possibly be that the drug deteriorates or varies in chemical composition, but I do not fancy that any other purgative shows such variability of action.

7. *Feeding.*—I do *not* believe in the starvation treatment for summer diarrhœa. We all know what happens to the typhoid patient who is kept upon a water dietary, and we all know the advantages of "feeding" our typhoid cases with an ample and yet suitable dietary. It is just the same with summer diarrhœa. You may save the child in the early weeks of illness, only to watch it die of marasmus in October or November. I believe that the heavy mortality of summer diarrhœa would be lighter if the typhoid analogy were kept in mind.

One difficulty, of course, is on account of sickness. But sickness is only very rarely troublesome if you start your morphia *early*, and if you decalcify your milk with the addition of sodium citrate. Give the feeds in small quantities as you would do for a bad typhoid patient, and by using half ounce and ounce feeds of undiluted citrate milk it is quite possible for a child to retain a pint of milk and upwards.

Since I wrote a note in the GAZETTE last April about citrate milk, I have had four or five letters asking for details. The action of the citrate in preventing coagulation is intra-gastric, and it makes no difference whether the citrate is added before the milk is steamed or boiled, or *after* sterilization. I tell the mother to add the solution to the milk immediately before feeding, because by so doing there is a more intimate mixture, and she is also less likely to forget—at that stage. Experimentally, an addi-

tion of two grains of citrate to each ounce of milk prevents any rennin-coagulation, the only change is the formation of an acid curd some hours afterwards when the milk has turned quite sour. It is important to remember that if less than ·5 grains is added to each ounce there is no effect in slowing coagulation. Thus—

The following times of coagulation were taken, using an ounce of fresh cow's milk (hospital) in each case. Temperature, 35° C. Rennin essence 3 minims, and 30 minims ·2 per cent. HCl, which amount of acid was found to be just sufficient to turn an ounce of milk acid to litmus.

A. Sodium citrate, 2 grains. Coagulation did not occur. A few acid curds after seven hours.

B. Sodium citrate, 1 grain. Slight coagulation after five hours. Mostly acid curds.

C. Control, no citrate. Coagulation in seven minutes. Firm clot.

D. Sodium citrate, ·5 grains. Coagulation in one hour and forty-five minutes. Flocculent clot.

E. Sodium citrate, ·25 grains. Coagulation in seventeen minutes. Firm clot.

F. Sodium citrate, ·125 grains. Coagulation in fourteen minutes. Firm clot.

G. Sodium citrate, ·062 grains. Coagulation in twelve minutes. Firm clot.

Potassium and ammonium citrate, 2 grains to each ounce of milk, have a similar action in retarding coagulation, and latterly I have been using the potassium and sodium salts in equal quantities.

It is interesting to note that the following salts are without effect in the prevention of clotting.

H. Potassium tartrate (neutral), 2 grains. Coagulation in twenty minutes. Firm clot.

K. Sodium acetate, 2 grains. Coagulation in ten minutes. Firm clot.

L. Sodium lactate, 2 grains (about). Coagulation in eight minutes. Firm clot.

Another difficulty with regard to feeding cases of summer diarrhœa is in connection with intestinal digestion, and there are some who consider that even if there is no trouble with vomiting, milk food passes through the intestines in an almost undigested state.

I have been investigating this point in connection with three severe cases of summer diarrhœa which have come under my notice recently. I have selected these three cases because they were almost the same age and weight. I know exactly the amount of citrate milk which they were taking, and approximately the amount of curd and solid fæcal residue passed daily. No other food was given.

Two specimens of fæcal curd—weighing ten grammes—were taken from each child, and the fat in this was analysed and averaged from the two specimens, which were obtained on two different days.

The method adopted was as follows:—

The fæcal curd was weighed (1), then thoroughly macerated in water until only fine particles were left, subsequently extracted with ether—repeatedly, until the last ethereal washings only produced small traces of fat on evaporation. These total ethereal residues (2) gave, in each case, the quantity of fat present as neutral fats (glycerides) or fatty acids. These residues re-dissolved in an alcohol-ether mixture were severally titrated against a standardised solution of alcoholic potash, using phenolphthalein as an indicator, and the amount (3) of fatty acid (estimated as oleic acid) obtained distinct from the neutral fat (4). The lower levels from the ethereal washings, after removal by separating funnel, were severally boiled with acidulated alcohol (HCl) to free the fatty acids from their soaps. By subsequent extraction with ether, and separation of the ethereal washings, the amount of fatty acid present in the form of soaps was obtained by evaporation on water-bath (5). These fatty acids were found to be liquid at the ordinary temperature of the air.

CASE No. 1.

	Specimen 1	Specimen 2	Average.
1. Weight of fæcal curd	10 gms.	10 gms.	10 gms.
2. Weight of neutral fat and fatty acids	·45 „	·48 „	*·465* „ = *4·65* p.c.
3. Weight of fatty acid alone (estimated as oleic)	·162 „	·17 „	·166 „ = 1·66 „
4. Weight of neutral fat alone (by difference 2 and 3)	·288 „	·31 „	·299 „ = 2·99 „
5. Weight of fat (estimated as fatty acid from *soaps*)	·41 „	·42 „	*·415* „ = *4·15* „

CASE No. 2.

	Specimen 1	Specimen 2	Average.	
1. Weight of fæcal curd	10 gms.	5·5 gms.	7·75 gms.	
2. Weight of neutral fat and fatty acids	·42 „	·24 „	*·33* „	=*4·25* p.c.
3. Weight of fatty acid alone (estimated as oleic)	·12 „	·06 „	·09 „	=1·16 „
4. Weight of neutral fat alone (by difference of 2 and 3)	·30 „	·18 „	·24 „	=3·09 „
5. Weight of fat (estimated as fatty acids from soaps)	·45 „	·24 „	*·34* „	=*4·38* „

CASE No. 3.

	Specimen 1.	Specimen 2.	Average.	
1. Weight of fæcal curd	·10 gms.	·10 gms.	·10 gms.	
2. Weight of neutral fat and fatty acids	·36 „	·43 „	*·395* „	=*3·95* p.c.
3. Weight of fatty acid alone (estimated as oleic)	·105 „	·12 „	·112 „	=1·12 „
4. Weight of neutral fat alone (by difference 2 and 3)	·255 „	·31 „	·283 „	=2·83 „
5. Weight of fat (estimated as fatty acid from soaps)	·65 „	·44 „	*·545* „	=*5·45* „

NOTE.—In the above case (No. 3), specimen 1. was really passed two days after specimen 2. A good deal of green bile was intimately mixed with the former. This may explain the higher percentage of fat in the form of soaps.

Now the total quantity of fæcal curd passed during any one period of twenty-four hours varied between 50 and 80 grammes. The total quantity of fat passed, therefore, varied as follows:—

No. 1.	
Neutral fats	1·49 to 2·39 gms.
Fatty acids	·83 to 1·32 „
Combined as soaps	2·07 to 3·32 „
Total weights	4·39 to 7·03 gms.
No. 2.	
Neutral fats	1·54 to 2·49 gms.
Fatty acids	·58 to ·92 „
Combined as soaps	2·19 to 3·50 „
Total weights	4·31 to 6·91 gms.
No. 3.	
Neutral fats	1·41 to 2·26 gms.
Fatty acids	·56 to ·89 „
Combined as soaps	2·72 to 4·36 „
Total weights	4·69 to 7·51 gms.

And the total quantity of undiluted citrate-milk taken in each case varied between 20 and 25 ounces fluid. Allowing 3·25 per cent. of fat and taking the specific gravity of the milk at 1032, the amount of fat taken by mouth is—19 to 23·8 grammes per diem.

Such figures would appear to support the view that a considerable amount of digestion is possible in cases of summer diarrhœa, judging by a comparison between the quantity of fat taken by mouth and that recovered after a careful analysis of the fæcal matter passed.

8. *Alcohol.*—Babies are so susceptible to the influence of even small quantities of alcohol, that its value as a food is exceedingly limited. When given in the form of brandy, any tendency to sickness is almost always increased, and whole-milk feeds as recommended above are better given without its use at any time. Not uncommonly intestinal peristalsis becomes more active and the diarrhœa even more profuse. When the child's condition is improving, a sherry-whey may be useful. If two-and-a-half ounces of cooking sherry are added to half a pint of boiling milk, one ounce of the mixture, after straining, contains the equivalent of twenty-five minims of brandy.

9. In cases of collapse, strychnine is by far the best stimulant, given as a hypodermic injection. Wrap up the limbs in cotton wool and keep the bed warm. For subcutaneous infusion, if the child is only a few months old, it will not be possible to introduce more than six ounces, using both axillæ, of a normal saline solution containing three per cent. of dextrose. Continuous infusion is a mistake; such a method worries the child, and keeps it awake.

10. Irrigation of the colon during the acute stage of the illness does not appear to be of any service apart from the occasional retention of a few ounces of saline solution. There is a further disadvantage that such procedure will make an otherwise quiet baby irritable and restless.

11. It is as well not to give directions for the preparation of albumin water to a Bermondsey parent. The majority of such Out-patients can only obtain stale eggs, the resulting concoction has an abominable smell and produces further sickness. It is much better to order feeds of boiled water if the child is thirsty and taking only small quantities of milk.

12. When the acute stage is over and the child, wasted and pale, is being coaxed to take

increasing quantities of nourishment, it is of the first importance to secure more than the average amount of sleep. Any nurse, whose opinion is worth having, will tell you that a fretful, restless baby is very far from being on the road to recovery, although the diarrhœa has been checked and the fall in weight has measured only a few ounces every week. These are the children who are again brought back to "Out-patients" for "marasmus" in October, and for whom an attack of broncho-pneumonia is so grave a danger. Make a *routine* practice, therefore, of giving the useful haustus chloral infantum during the convalescent stage. I find that a drachm dose given about one o'clock just before the afternoon sleep, and another dose later in the evening, ensure the extra time of rest which is so essential to recovery.

Notes from Abroad.

So large a part of medical practice now-a-days consists in the diagnosis and treatment of gynæcological conditions, that I have thought it might interest some of the readers of the GAZETTE to hear a short account of some of the work and methods of treatment adopted in the great clinics in Berlin.

At a fortunate moment a vacancy occurred on the obstetric side at the Frauenklinik of the Charité Hospital, and I was lucky enough to secure it. As we deal with all the cases of difficult labour, I have been able to have many opportunities of learning their methods and putting them into practice.

As a whole, the methods of treatment are very conservative, and interference is only indicated under very definite conditions. In face presentations, Professor Tranz is of the opinion that although the labour may be greatly prolonged it is very unusual to have to interfere.

In uncomplicated cases of brow presentations, at first conservative methods are always adopted, and quite a number are born spontaneously. General conditions of the mother, *e.g.*, eclampsia, etc., of course call for interference, as do certain conditions of the child, but otherwise the case is left to nature, unless a rise of temperature occurs denoting a septic infection. In one such case the temperature rose on the third day, and I crushed the head with a cranioclast, after having perforated the eye.

With regard to cæsarean section, the route adopted is either by the vagina or above the symphysis. In the latter cases a four inch incision is made through the cervix below the site of the placenta. If the head is down, the child is delivered by forceps through the incision, otherwise a foot is seized and withdrawn, and the child delivered thus. In fifteen minutes the placenta is expressed, and the uterus and the abdominal wall closed. By adopting this method there was a noticeable absence of bleeding, as the placental site was not interfered with in any way.

Neither forceps nor version is ever made use of on a dead child. In gynæcological out-patients the amount of material is enormous. I think the thing that strikes one most at first is the very large number of cases of pyosalpinx. Professor Fromme is of the opinion that over ninety per cent. of them are due to the gonococcus, and a very small per cent. are considered here to be due to the tubercle bacillus.

During the acute stage they are treated with absolute rest in bed, salines, etc. Operative measures are never adopted. Ergot is given if there is any hæmorrhage from the uterus. In the chronic stage they are treated with hot douches and hot air baths. Six powerful electric lamps are arranged suitably beneath a semicircular metallic frame. This is placed under the bed clothes and used for half an hour daily. The time of application is gradually lengthened to an hour twice daily. The results thus obtained are very good. The few who do not improve after some weeks of this treatment are subjected to an abdominal operation.

Carcinoma of the cervix in all possible cases is treated by Wertheim's operation. The question of the operable nature of the case is determined by examinations by the vagina, rectum and the cystoscope. Early infiltration of the bladder wall is thus often detected, and although this does not absolutely contraindicate the operation it naturally materially affects the treatment and prognosis.

Professor Bumm does a most elaborate operation. The patient is anæsthetised and placed in the lithotomy position. The bladder is first emptied by a catheter. The vagina is then thoroughly washed out with lysol. It is then dried, and the vaginal surface of the growth thoroughly scored with Paquelin's cautery. It is then painted with a strong solution of nitrate of silver and firmly packed with iodoform gauze. The patient is then prepared in the usual way for abdominal section.

A vertical median incision is made and the bleeding stopped and the peritoneum opened. The edges of the wound are covered with sterilised gauze, and kept apart by a quadrilateral retractor. The patient is then swung into the Trendelenberg position, and the intestines packed off carefully with gauze. His dissection commences laterally, and having tied the ovorio-pelvic ligament it is carried down along the lateral wall to reach the uterine artery which is tied as near the lateral wall as possible. This leads to the ureter, and this structure is carefully freed along the pelvic part of its course and retracted. Now the rest of the pelvic cellular tissue is removed, the dissection being carried right back to the sacrum, right forward to the sides of the bladder, along the obliterated hypogastrics almost to the umbilicus. The same dissection having been carried out

on the other side, the uterus is seized and a peritoneal flap turned down from its anterior aspect and the bladder pushed forward; then a posterior flap is similarly made and the rectum pushed backwards. The dissection is carried now low down along the vaginal walls. The vaginal plug is then removed, and the vaginal walls are clamped firmly with a special instrument, and the uterus, ovaries, broad ligaments and their contents, a large part of the vaginal wall, and as much of the pelvic cellular tissue as possible are removed in one piece.

Now the peritoneal flaps which were reflected from the uterus are sutured to the cut edges of the vaginal wall with interrupted sutures. An iodoform gauze drain is left in, protruding through the vagina. The iliac glands are then carefully dissected off the vessels, and now, with the greatest possible pains the raw surfaces, which have been made on the pelvic walls, are covered by peritoneum with interrupted sutures. Then with a continuous suture, which reaches nearly three-quarters of the way round the pelvis, this row of interrupted sutures is buried, and at the same time the vaginal drain and orifice are shut off from the abdomen. This was a very elaborate procedure, but Professor Bumm stated that it was done to prevent the subsequent formation of a hæmatoma.

In Professor Franz's clinic spinal anæsthesia by novocaine is almost invariably used, and in their hands is certainly very effective. The abdomen is opened by a horizontal incision, which divides the skin and fascia in the line of the anterior superior spines. The recti muscles are then separated in the middle line. This gives an excellent view of the parts. His method is much the same as the one adopted by Professor Bumm, but he omits the elaborate row of interrupted sutures, and shuts off the vaginal orifice from the abdominal cavity and closes the peritoneum by one continuous line of suture. He states that, in his opinion, the presence of the rectum and pelvic colon in the pelvis after the operation is sufficient to prevent any likelihood of the formation of a hæmatoma.

All these cases suffer subsequently to the operation from a cystitis, which is due to the interference with the bladder, and Professor Franz states that, in his opinion, if a cystitis does not follow, a proper Wertheim has not been done.

Chronic vaginitis is treated by the application of tincture of iodine to the vaginal wall and cervical erosions by the use of ichthyol glycerin tampons.

In the course given here for cystoscopy of the female bladder we have had several opportunities of observing the changes to be noticed in early infiltration of the bladder wall by a growth spreading from the cervix.

We have had two cases of pyelitis occurring during pregnancy which we have successfully treated by catheterising the ureters and keeping the patient in bed on a milk diet, and giving saline purgatives.

H. CHAPPLE.

A Case of a Tooth-plate Impacted in the Œsophagus.

A WOMAN, aged 40, came up to the Front Surgery on Friday, August 10th, with the following history:—

On the night of Wednesday, August 8th, she went to bed and to sleep without removing an upper false toothplate from her mouth. After being asleep for a short time she awoke and found the tooth plate was missing, at the same time feeling a pain in her chest. A medical man who was sent for failed to reach the plate, and an unsuccessful attempt to make the patient vomit the plate was made. On Thursday the patient went to an infirmary, but the attempt to dislodge the foreign body was unsuccessful.

When admitted to Lydia Ward, the patient could only swallow fluids. She said she had been unable to swallow any solids since the plate had been swallowed, and complained of pain in the chest. X-ray examination showed the toothplate to be situated between the second and third dorsal vertebræ. The patient was anæsthetised with chloroform (Junker), and Mr. Steward operated. A clear view of the plate was obtained by means of a long Killain's tube passed down the œsophagus. After several attempts, a long metal hook was passed over the toothplate, and gentle traction was exerted in an upward direction, the Killain's tube at the same time being slowly withdrawn. By repeating this process several times, the plate was slowly drawn up the œsophagus until, by employing a shorter œsophageal tube, a pair of long forceps was able to grip the plate.

Some difficulty was experienced in moving the plate past the cricoid cartilage, but this was successfully accomplished, and finally the plate was delivered through the mouth with the finger, when it was seen to be already extremely foul. Subsequently, the patient was treated with a mouthwash of lotio chinosol and formalin tablets were also given.

She had nothing but boiled water for the twenty-four hours subsequent to the operation, and now, apart from very slight pain on swallowing, has no further trouble in deglutition.

Change of Address.

J. R. Cook, M.B., B.S., from Woodford House, Woodford Green, to 3, Branksome Terrace, Bournemouth West. Telep. 996.

J. E. Dupigny, from Dominica, West Indies, to 2a, Elm Avenue, Nottingham.

A. E. H. Pakes, B.Sc., from Belfast, Transvaal, to Inhanguvo, Box 10, Beira, East Africa.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Concomitant Squint: Its Causation and Principles of Treatment.

CLINICAL LECTURE BY ARTHUR W. ORMOND.

IT is not obvious, until we critically consider the matter, or until we personally experience the loss of one eye, what is the advantage to us of possessing two eyes. The Cyclops, a fabulous race of shepherds, possessing only one eye in the centre of their foreheads, exist in the mythological world as makers of armour and ornaments for the gods, but their work, I suspect, was rather lacking in detail and refinement, and depended for its distinction on its size and strength. To-day I want to interest you in considering the consequences of the incorrect adjustment of one eye to the other, not only on the grosser type of vision, but on the finer also.

By "incorrect adjustment" I mean, more particularly, that condition in which the visual axis of the one eye does not meet the visual axis of the other eye, at and upon the object looked at, so that what is generally called "squinting" exists, and further, as will be explained in greater detail later, one eye only is being used at a time.

It is a commonly observed fact that patients having had a cataract successfully removed from one eye, experience great difficulty in pouring wine, water or other liquid from one vessel into another, and generally make use of other aids to assist themselves in determining, if the neck of the vessel from which they wish to pour the fluid, is in front, over, or behind the vessel *into* which they wish to pour it. The reason of this difficulty is that, with the use of one eye only, the sense of depth, *i.e.*, the third dimension, is difficult of appreciation.

About 110° of the full field of vision of 180° is commanded by each eye, that is to say that, except for about 35° on the temporal sides of the two fields of vision, everything we see can be seen by the two eyes, and only the object which is actually being looked at, has its image on corresponding parts of the retina, viz., the macula; and yet we are not conscious of seeing everything doubled, although, as a matter of fact, we can compel ourselves to acknowledge a diplopia, by voluntarily cerebrating and looking for the second images which are certainly difficult to find, but can be seen and recognised. If we take a lead pencil and hold it about twelve inches from our face and look at an object on the wall in front of us, we shall soon be conscious of being able to see two pencils, and if we reverse this process, and hold the pencil at arm's length, and fix an object nearer to us, we shall again be conscious of seeing the pencil duplicated. The effect, then, of an incorrect adjustment of the visual axis is, in the normally sighted person to produce a diplopia, yet as will be explained later, in concomitant squints, where obviously incorrect adjustment of the axes exist, it is rare for diplopia to be complained of. That which we see when looking at an object, is not the image formed by the right eye or the left, but an image formed by the two eyes, different from either. This is what is meant by *binocular vision*. Having, then, two eyes, we use them for the purpose of seeing objects in their correct relative positions, especially with regard to the third dimension. With monocular vision we have less power to estimate the proximity of a moving object which is advancing straight at us, such as a cricket or tennis ball, than we have with binocular vision, and binocular vision consequently is an essential to a first class cricketer or tennis player.

To further illustrate the difference between binocular and monocular vision the following parlour-game should be undertaken. Insert into the lintel of a door the blade of your pen-knife (it will probably be more popular if you choose the kitchen rather than the drawing-room door for this purpose), and on the handle of your knife balance a wine cork. Now stand three full paces back, cover one eye up, and with your index finger and arm stretched out to their full length, advance quickly on the cork, and with a horizontal sweep of your arm, try to knock it off cleanly and neatly with your finger. You will probably fail in two out of three attempts, and yet with both eyes open, it is impossible to misjudge your distance, provided that is, if you yourself really possess binocular vision.

The advantages to us of having such vision may be tabulated thus:—Firstly, we are able to appreciate the third dimension and to see objects solidly, that is, stereoscopically—a necessity for excellence in many of the finer trades, artistic occupations and games; secondly, the field of vision is enlarged; thirdly, we have two seeing eyes, each capable of full vision; the advantage of this is obvious when we consider the chances of losing by accident or disease one of these eyes, since defective or absent binocular vision is usually associated with amblyopia or defective vision in one eye, and if, as sometimes happens, an adult is unfortunate enough to lose his good eye, he would then be left with an

amblyopic eye, having a defective visual acuity incapable of cure, although outwardly and ophthalmoscopically perfectly healthy. A squint is undoubtedly a defect in appearance, and long persistent squint, especially when present in the second decade of life, gives little hope of cure even with treatment; for although the defective position of the eyes may be corrected by operative interference, or the convergence may disappear owing to the tendency to divergence which results from the increasing growth of the face and orbits and the relaxation of the accommodative effort, yet the amblyopia persists.

Binocular vision varies in degree—it may be so slight as to necessitate the deliberate separation of the images of the eyes by means of prisms and coloured glass before its presence can be demonstrated. On the other hand, it may be obvious to the patient if the surgeon simply presses the eyeball below with his finger. To ascertain the presence of binocular vision and to demonstrate its existence it is only necessary to be provided with a prism of 10° or 12°. If we look through such a prism with its apex inwards or outwards, we can easily control the slight inconvenience occasioned by its presence and single vision remains; but if we hold it with its apex up or down we have so little control over vertical displacements (and remember the object always appears displaced towards its apex) that an uncontrollable vertical displacement is produced and everything appears double.

If now we take a patient into a dark room and, standing him in front of a light, insert a prism with its apex upwards in front of one eye, he will, if he has binocular vision, see the two lights, and if a red light is placed in front of the other eye, he will be able to tell you the relative positions of the two lights, the red and the white.

At birth we have only a very moderate amount of vision, and, probably, none at all of the binocular variety. The pupils react to light, showing the presence of a light reflex, and the eyes will fix any attractive object placed in front of the child's face—the fixation reflex—but binocular vision, in the true sense, developes much later. The visual acuity at birth is confined to mere perception and projection of light. There is, however, a potentiality of true vision, but as the optic nerve fibres do not possess in their entirety their medullated nerve sheaths until the end of the third or fourth month after birth, it is impossible that vision can include the powers of detailed differentiation. According to Fleichsig, the formation of medullary sheaths to the fibres of the optic nerves has commenced at birth, but has not extended centripetally to the cortical area, consequently we may assume that at birth there is no isolated conduction along the fibres of the optic nerve to the brain.

Further, in order to appreciate correctly the appearance of objects in space, as to form, colour, etc., the centres of the other sensory organs must be developed, and the transcortical fibres connecting these with the visual centres must be also developed. Probably a period of some two or three years is passed during childhood before the centres and their communications one with another are fully matured.

Baumgarten asserted many years ago, and experience confirms his observation, that a newly-born infant saw merely light, and that only quantitatively. We all know the vacant stare of very young children, the inability to fix the eyes for more than the shortest time, and the isolated movements of one eye and often one lid.

Squint is a condition in which the visual axes of both eyes do not meet at the point looked at, *i.e.* the fixation point. This definition is sufficient for general use, but other factors are also associated with it, such as defective binocular vision; the suppression in consciousness of the visual image of one eye; an inequality in the visual acuity of the two eyes; an error of refraction; and some amblyopia, congenital or acquired. Generally two of these factors are present, one not often being found to exist alone, since, where one factor only is present, squint does not usually appear. Defective fusion faculty is undoubtedly the most potent factor in the causation of squint, yet this alone is not sufficient to produce a squint.

In the examination of a case of strabismus, we need to know the age of the patient, and the length of time since the squint was first noticed (these are very important factors in the prognosis); whether the squint is a convergent or divergent one; a monolateral or alternating one; what is the vision of each eye separately, also the refraction under atropine; whether the patient has binocular vision, and if so, to what degree? In addition, it is useful to have the angle of deviation measured, and to notice if the separate movements of each eye are full; as, in some cases where the squint has been present a long time, secondary contraction may occur in the muscle and so necessitate *operative* interference for the sake of the defective appearance.

Concomitant squints are very rarely noticed to develope after the age of ten years. It is a

trouble of early child life, and the onset is most common about the age of three. So long as the squint is present and no diplopia is complained of, the image of one eye must be suppressed in consciousness, and if the squint is mono-lateral the visual acuity in the squinting eye will cease to develope and may even lose some of its acuteness as the result of disuse; hence we always find that the fixing eye has better visual acuity than the squinting eye. If the squint is an alternating one, the patient first fixing with the right eye and then with the left, showing no preference, we may infer that the acuteness of vision is about equal in the two eyes.

If a mono-lateral squint has been present for some years and was noticed to develop early in life at two or three years old, we expect to find a very high degree of amblyopia in the squinting eye. This may be so great that on covering up the good eye the squinting eye is unable to fix an object at all, but looks to one side or other of the object displayed, showing that the greater development of the macular area for visual acuity is not present, and that the patient sees as well with other parts of the retina and has no macular preference. In this case the prognosis is serious, since the visual acuity will not exceed one-tenth of the normal.

The visual acuity of each eye should be accurately recorded, and the refraction examined under atropine. The degree of squint, *i.e.*, the angle of deviation, should also be measured. To do this place the patient at a metre distance from Maddox' scale, which is fixed on the wall in the dark room, and switch on the light which you will find in the middle of the scale; then make the patient look at the light, and the reflection of it on the cornea will be seen in its centre; now tell the patient to look at the small figures marked on the bottom of the scale until the light reflex is seen to be centred on the cornea of the deviating eye; the figure at which the patient is looking represents the angle of the squint. Lastly the fusion faculty can be tested by a stereoscope with Kroll's pictures in order to ascertain if the patient has the first, second or third degree of binocular vision.

We are now in a position to consider the probable factors leading to concomitant squint, and the first and most important is that, owing to the early age at which strabismus occurs, the fusion faculty is undeveloped and allows the visual axis to fall apart without producing any marked sense of diplopia. Secondly, the majority have an error of refraction, generally hypermetropia and hypermetropic astigmatism.

Donders of Utrecht, taught us, many years ago, the reason why it is difficult for hypermetropes and myopes to regulate their visual axes properly. When a normally sighted person looks at a distant landscape the eyes are parallel, the convergence in abeyance, and the accommodation relaxed; if, on the other hand, he looks at a book placed at twenty inches (half a metre) from his face, he converges to two metre angles and accommodates two diopters, and, if it is placed at ten inches from his face, the convergence is equal to four metre angles, and the accommodation to four diopters. But when a hypermetrope of four diopters looks at a distant landscape, he must, to see it clearly, accommodate four diopters, but he does not need to converge since the view is distant, and the visual axes should remain parallel. If he would read a book at ten inches distant (quarter of a metre) he must accommodate eight diopters and converge four metre angles. A myope of four diopters, however, reading at ten inches, does not need to accommodate at all, but converges four metre angles. In other words the hypermetrope must accommodate in excess of his convergence, and the myope must converge in excess of his accommodation. We have already observed what happens to an emmetrope or normally sighted person if he converges in excess of his accommodation, or accommodates in excess of his convergence, viz., in each case diplopia is produced.

In patients who squint there is, in addition to a defective fusion faculty, an error of refraction, and these two factors together result in vision being more distinct and clear when one eye only is used, since by that means the patient gets rid of any sensation of double vision and of the difficulty of working the unequal accommodation and convergence in double harness.

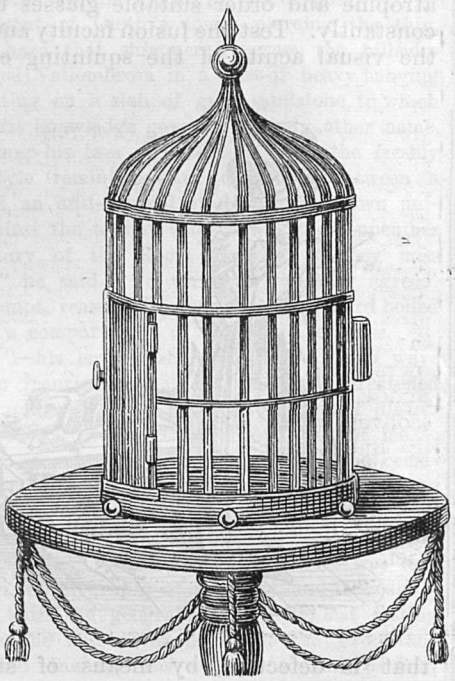
In all probability in squinters, the fusion faculty is less well-developed even at an early age than it is in non-squinters, because the fusion faculty is one that developes after birth, and *all* ametropic children do not squint, only a certain proportion of them, and those have defective binocular vision.

It is, therefore, essential accurately to correct the refraction of the eye in cases of squint, and glasses should be worn constantly until the patient is cured.

In those cases where the squinting eye is so amblyopic that even when the good eye is covered, it is incapable of fixation and wanders from side to side, the error of refraction should be treated by glasses, and, in addition, the good

eye should be excluded from the light, and so force the amblyopic squinting eye to do some work; this must be continued as long as there is any sign of the visual acuity improving, and when that is accomplished the eyes may be used together, and the fusion faculty educated anew by means of suitable stereoscopes or stereoscopic appliances.

There are various pictures arranged in series for the education of children who squint; those I use are Kroll's, which can be employed in an ordinary inexpensive stereoscope; Kroll's stereoscopic pictures are arranged in series, the first ten of which have two entirely dissimilar pictures, arranged so that one falls on each retina and there is no fusion possible, but if binocular vision is present, even to a moderate degree, the patient sees the two pictures and can name them. For instance, on card seven there are a cage and a parrot; if both these are seen and named, the patient should be encouraged to try and get the parrot into the cage and hold it there; if this can be done, there is, in all probability, some power of fusion.



In the second series, 11 to 23, we have a part of each picture reproduced in the other, so that fusion is possible, as for instance, in figure 19. On one picture we have two children reading a letter; in the other the taller child is reproduced exactly, but not the other, but in addition, a dog and cat are seen. If, then, only binocular vision is present, and not fusion faculty, the patient will see three children and two animals; if fusion faculty is present, two children and two animals —one child being seen stereoscopically. Numbers 24 and 25 are made so that the two pictures can be separated from each other and made to approach or recede from one another, which ever is necessary. If one places the two parts together for a convergent squint, the halves will fall into such a position that one picture is made. If the two parts of the picture are slowly drawn apart by the nurse, the muscles, in their endeavour to keep the single picture image, will adjust themselves, the internal recti relaxing, and the external contracting, so that by this means one obtains a muscle drill. The reverse obtains for a divergent squint.

Amblyopia may be congenital or acquired, but the latter is the more common. By congenital amblyopia is meant a defect in the visual acuity of the macula, for which there is no corresponding change in the fundus visible, to the ophthalmoscope, to account for it, and is incapable of improvement, being generally of such a degree that the vision is reduced to half or quarter. It is often, but not always, associated with an error of refraction, and is frequently found when tests are being made for the purpose of passing recruits into the Government Services,

etc., and is always a matter of surprise to the rejected candidate, who has had no previous suspicion of his defect. Acquired amblyopia, on the other hand, is usually associated with squint, or some cause depressing the visual acuity early in life, such as corneal ulcer, cataract or injuries.

Amblyopia exanopsia is the term given to the condition of amblyopia found in a disused eye, and its degree has some reference to the length of period of disuse.

If the visual acuity has once been fully developed, it is apparently always capable of retaining its acuteness of vision, even though it were unused for even as long as twenty years. If, however, before the visual acuity is fully developed a squint ensues, and one eye falls out of use, then apparently the proper development

of the macula is interfered with, and the vision remains undeveloped. It may even appear to deteriorate owing to its disuse, just as the left arm is less apt than the right owing to its less frequent employment, but what is lost in this way can generally be regained. Not, however, what has never been evolved before development has ceased. Hence the importance of treating squints as soon as they arise, as, if they are neglected, the prognosis with regard to the vision in the squinting eye becomes worse and worse.

I do not intend to-day to speak of operative interference or to discuss the relative merits of tenotomy and advancement. I must leave that for another lecture, but I would recapitulate for your advantage the various stages in treatment, and you must remember that treatment will be long, lasting many years, and should not be relaxed until the cure is permanent, *i.e.*, until the eyes remain straight and good stereoscopic vision is obtained, and development is so advanced that we may feel confident that no recurrence will take place. Of course, if any considerable error of refraction is present, glasses will have to be worn even after the eyes are straight and the binocular vision perfect, so as to avoid eye-strain.

First of all, examine your patient under atropine and order suitable glasses to be worn constantly. Test the fusion faculty and develope the visual acuity of the squinting eye, where

that is defective, by means of stereoscopic exercises; the squint may, and often does, disappear at this point. If, however, the visual axes are not parallel in distant vision, operative treatment must be resorted to, since you now have proved that glasses, etc., will not correct the trouble. If glasses worn constantly for three or four months effect no improvement, then surgical interference must be undertaken as soon as possible, as fusion faculty cannot be developed unless the eyes are straight.

After the operation, the glasses should still be worn for some time and the stereoscopic exercises continued.

In the Protestant Cemetery.

STRAGGLING tiredly down the winding road that, crossing the Appenines, leads on to Florence, I had met him, walking as dejectedly behind a wine cart progressing leisurely towards Fiesole. We had shared salametti and sour aniseed bread sandwiches, and had exchanged casual confidences as we divided our comestibles. He told me that he came from Ragusa, and had been studying medicine at Triest. Now, it being the glorious time of *Ferien,* he had decided to visit Italy, and had accomplished the way, so far, on a lira a day and an unlimited fund of good nature and inexhaustible energy.

Below us lay Florence

"washed in the morning's water gold,"

with the point of Giotto's tower piercing the thin, opalescent haze that shimmered across the hillsides and shrouded Vallombrosa in a mist of heavy hanging cloud. Sitting on a slab of grey sandstone, to which his geological knowledge gave an entirely other name, he had swung his legs and declaimed, in the freshly vigorous style reminiscent of a debate between a clerical and an anti-clerical student at his own university, against the tourist who crosses the Appenines in the luxury of the Rome express. "They miss everything," he said. To which I cordially agreed. For you cannot, reasonably, eat garlic and hard boiled sausage in a compartment of the Rome express.

"Now I"—his enthusiasm permitted him to wave his arms so frantically that his rucksack threatened to become undone—"I wander just where I please. I stop to see the graves—they always interest me."

Somewhat surprised at this fondness for the cemetery—Chateaubriand's "sensation of akinness to the dead," perhaps—I asked him what he had seen. Paracelsus' tomb at Saltzburg, Grillpartzer's at Vienna, and, of course, the Admiral's at Venice. He was well primed with the biography of the dead, and thoroughly acquainted with the geography of their last resting places. But he had never heard of the Protestant cemetery, and Junkets was as new to him as Mr. Chesterton. When I explained, he grew interested. A medical man who was a genius of letters—a Mozart of the knife—a name in the history of the introduction of creosote—the grave at least was worth seeing. Could it be done on a lira a day? I doubted, but Adriatic courage—that stamina of the shore-folk which Cornaro lauded so highly in De Acqua—came to his assistance. Of course it could! It meant leaving Orvieto and the Etruscan Museum, meant leaving the Est—Est—Est, of which he had promised himself one mezzo bottilia, and above all it meant forsaking Thrasymene and the disappointing delights of Sanguinetto, where the river—now a puddle that holds no minnows—once ran purple to the lake, suffused with blood. At the Hospital of the Innocents we parted, I to take the train to Perugia, he to wander on to Rome, appointing a mutual meeting place on a fixed date at the left-hand fountain of the Piazza San Pietro.

There a fortnight later, guarded by a scrubby-cheeked Italian doctor, who was introduced as an old "senior" from Lusinpiccolo, we renewed acquaintanceship, and as the shadows fell slanting at the base of the Janiculum, blackening Tasso's oak, but lighting up that finest of man's statues which crowns the summit, we reached the cemetery wall. It is a good walk away from St. Peter's, but on a lira a day even when one enjoys the hospitality of a senior colleague, a carriage is out of the question. The great pyramid of the tribune Cestius pointed over the wall. Gangs of tourists drove past from the flamboyant San Paulo, where that day there had been a festa of sorts. Fritellaries settled on the roadside to enjoy the last stray gleams of the sun. At the cemetery itself not a soul, and the small gate locked and chained. The senior suggested a visit to the larger acre which lies on the right; perhaps the guardian of the dead might be there. The Dalmatian was for climbing the wall. But while we were considering the feasibility of both methods there came up a bambino, jangling a bunch of keys. A morose-faced lad, without a sparkle of delight in his dark eyes, gruff in his speech, and obviously harassed by such untimely comers. He unlocked the gate without deigning a remark, and then hung idly at the postern, shaping his lips to a whistle which was stillborn, for it never reached our ears. The senior spoke to him in fluent slang, but he merely said "*Si, si, signori,*" as if that disposed of the whole business.

The Cimetieri del Protestanti is not a large acre; it is stupendously overgrown with weeds, among which a stray poppy, and errant daffodil, and here and there a bunch of flowering saxifrage peep out. The grass has covered most of the graves, giving a forlorn and cheerless aspect to the whole plot. Only in the far right-hand corner, close to the wall which is overgrown with old ivy, thick in the stem and smoothly glossy in the leaf, there is some evidence of more recent care. Nothing surpasses its official description, the classic epitome of a graveyard, where—

Flowering weeds and fragrant copses dress
The bones of Desolation's nakedness.

Where also—

The gray walls moulder round, on which dull time
Feeds, like slow fire upon a hoary brand,
And one keen pyramid with wedge sublime
Doth stand
Like flame transformed to marble.

You halt by a violet-covered little plot, walled in square by a low rampart of stone, and shadowed by laurels, behind which the gaudy cross of an undistinguished dead rises as if to mock the simplicity of this grave. The tombstone itself is of plain white

marble on a double square base, and on it, rather roughly chiselled, the broken lyre, below which you may read the inscription—

This Grave
contains all that was Mortal
of a
YOUNG ENGLISH POET
Who
on his Death Bed
in the Bitterness of his Heart
at the Malign Power of his Enemies
Desired
These Words to be engraved on his Tomb Stone
Here lies One
Whose Name was writ in Water
Feb. 24th 1821

KEATS' TOMB IN THE PROTESTANT CEMETERY AT ROME.*

*From a photograph by Mr. Darrell, of Orpington, to whom I am indebted for permission to reproduce it here.

I have seen Keats' grave on many occasions, and never yet without observing on it some humble tribute of admiration and respect in the shape of a small bunch of rudely-tied flowers. Sometimes there is a more pretentious wreath, a cross, or a floral anchor, with awe-inspiring ribbons, revealing the fact that So-and-so (whose name does not in the least matter) designed this offering "as a mark of appreciation." To Guy's men the grave must always suggest memories. It must always be as thought-inspiring as that other lonely tomb in the Orient where our old Quaker pathologist lies. But it is not only to us that Keats is a reality. His work, so sincerely spontaneous and so whole-heartedly humane, exuberant in its sense of colour, must appeal to everyone who loves art and nature. The professional senior, who confessed that he had only read the Lamia, and understood that indifferently, "because it contains so many words, colleague, which are not in Signor Murray," was, I am afraid, far more interested in the history of the creosote. The Dalmatian, while not cavilling at any legitimate professional interest in pharmacological history (he admitted that he had himself discussed opium in the graveyard at Saltzburg), approached the tomb with a more homaging calm. Who were those enemies? Is it, then, true that in England also, as with the clericals at Trieste, a man's professional career may be marred by his private opinion on the humanities? Was there ever an English Escobar? Austria has no journal that corresponds to the Edinburgh Review, and Jeffrey, that noteless blot on a remembered name, cannot be explained and condemned in a few sentences. But the Dalmatian, when he returns to Trieste, is going to read up the literature on the subject. Already he compares Keats to Herwegh—a comparison which no Keats lover can admit as true. There was no colourist in literature before Keats' time, at least in English. Since then we have had many, from the paint-box catholicity of Swinburne to the crude pastels of Gordon. The senior, who ministers sometimes to the English colony—or such of them as are Black, for he is a clerical himself—objects on behalf of "your great Shakespear," and quotes Jacques' description of the dying deer. But, if Goethe is right, or Vernon Lee, that is daubing, not colouring. "The Eve of St. Agnes," is not a mere enumeration of colours, but it arouses the impression of colour in a way no other poem does. Let physiologists fight it out among themselves how Miss Keller can distinguish between chrome yellow and emerald green (which has nothing whatever to do with emeralds), but the feeling of colour in Keats is far more intense than in anything suggestive that Herwegh ever wrote.

Next to the grave is a tiny little tombstone that marks the spot where they buried the artist's child. The father was Keats' closest friend. His fine portrait in the National shows Keats as it is no hardship

to imagine him—as a third year's man who finds more delight in counting the motes in a sunbeam, fancying them to be Oberon's fairies, than in listening to the Socialist professor who lectured on clinical methods. The smaller portrait, now in possession of Professor Oliver at Kew, is an even better attempt to portray the rapt expression on the young poet's face, and of all the portraits, next to the one which prefaces the letters to Fanny, the most likeable. The child's grave snugs alongside the poet's, the trails of the ivy straggle over it as they leave the margin of the larger tomb, and an outlying branch of the laurel shelters it.

"If we wish to see the Cardinal, colleagues," warned the senior, "it is time to go, *diritta*."

"Do they allow a person to pick a sprig of the myrtle?" asked the Dalmatian. "I have already a sorrel from the Paracelsus."

"There can be no harm. That maledetto bambino is not looking, and even if he is, does it matter? Pick, my friend, and let us go to the Cardinal."

We saw the Cardinal, and the senior learnedly discussed with the junior whether or not Palestrina knew anything at all about orchestration. I believe the junior argued that he did, while the senior held that he didn't, and couldn't possibly. On the way back the Dalmatian bought a post-card of the tomb of Cajus, and the next morning we pilgrimaged to the Piazza di Spagna, and once more became sentimental in the Keats' house.

Five months later I got a crabbed letter from Ragusa asking me to forward a cheap edition of Keats. "And you might, amice," it concluded, as a preface to the usual and formal expression of the writer's immense solicitude for the recipient, "you might also procure for me, if you will be so good, a copy of the journal of Edinburgh!"

C. L. L.

Appointments.

Military.

Captain A. C. OSBURN, R.A.M.C., in medical charge, Bedford, has joined for duty at the Military Hospital, Colchester.

The undermentioned Lieutenants R.A.M.C. to be Captains, dated 4th August: M. LECKIE, A. L. FOSTER, W. H. S. BURNEY.

Civil.

FRANCIS, R. C. H., L.R.C.P., M.R.C.S., appointed Honorary Anæsthetist to the Victoria Home for Invalid Children, Margate.

THOMAS, F. L., M.B., B.S., appointed Pathologist to North Devon Infirmary, Barnstaple.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

The Insurance Bill.

DEAR SIR,—A correspondent in your last issue protested against your summons to the medical profession to welcome this Bill. I also wish to enter a protest, but on grounds different from his. Your summons appears to be based on an assumption, which may be axiomatic to you but is by no means so to me, namely, that the Bill will confer such benefits upon the health of the nation as will be both great and commensurate to their cost. I hardly like to suggest as an alternative explanation that you may perhaps unconsciously draw but little distinction between intention and performance. Mr. Lloyd George's intentions are doubtless excellent; and if he were now consulting the medical profession as to the best way of carrying them into effect, I should consider your remarks reasonable but unnecessary.

The Bill, however, has to be considered altogether, apart from the intentions underlying it. If the medical profession welcome the Bill they commit themselves to the view that it is the best, or, at least, a good way of carrying out these beneficient intentions; in fact, you are asking them to express what would be considered to be an expert opinion that the nation is thus making a wise investment of a good many million pounds per annum. The Bill, as at present amended, contemplates a great extension of contract-practice. I had always been lead to suppose that the profession, as a whole, considered this form of practice to be the least desirable or satisfactory from the point of view both of the doctor and his patients. It would hardly, therefore, be honest of the profession to welcome this extension of an admitted evil until it had been shown that there was no practical alternative and that the evil would be far outweighed by the good done. I have not seen any evidence that either of these points has received the serious attention of the framers of the Bill. The obvious alternative of remuneration for piece-work has apparently been ruled out on the grounds of expense. But even if this point is considered as settled, it is at least open to argument whether it would not be better to treat one patient properly than to tinker with two.

The medical profession have had to fight so strenuously for the removal of the hardships imposed upon them by the original Bill that they have scarcely had time to consider whether it is good or bad from any other point of view. They have not been consulted on the question. You, Sir, apparently consider the Bill a good investment for the nation's money. Sentiment is not a safe guide either in business or finance; I therefore give you credit for not trying to influence our opinion for any such futile reason. Nevertheless instead of telling us that we ought to subscribe, it would be far more convincing to me, personally, if you would indicate why the

particular scheme you are helping to promote, offers the greatest security with the highest rate of interest to the nation, whose income after all is limited.—Yours, etc.,

A. P. BEDDARD.

SIR,—May I suggest that a column of the GAZETTE might be usefully devoted to "Notes and Queries"? We are often confronted with puzzles in practice to which we G.P.'s can find no sufficient answer, and when we turn to our text-books no light have we.

One presumes that the Editor of the G.H.G. is omniscient, and if we could look to him in our time of doubt and receive from him the answer for which we crave, what a boon it would prove to many of us.

As I am writing to you, may I add a few words on subjects suggested whilst reading to-day the current issue of the GAZETTE?

Re the Lloyd George Insurance Scheme. In spite of Dr. Vicars's letter, with much of which I agree, I hold that the scheme is good, and should receive the support of the profession; *but* we must stand shoulder to shoulder, and see that, whilst benefiting the masses, the new Act does not ruin us medical men as individuals. We must have a capitation grant large enough to recoup us for the loss of much of our at present private and paying patients. Ten shillings a year a head would be none too much to pay us. Looking round on my own list of patients there will remain only a few score who will not come into the scheme.

No one can forecast how much extra work in the way of visits and night calls will be entailed upon us. We must see that clause 13 remains in the Bill, that the medical profession is adequately represented on the Health Committees, and that we are no longer to be sweated by the Friendly Societies. We shall, at least, have one thing to be thankful for. The practice of medicine will at last be divorced from that of pharmacy, and no longer shall we be compelled to give that obnoxious bottle of medicine for which the ordinary Englishman craves. I suppose, at least, three-fourths of the medicine we now make up we believe in our inmost hearts to be unnecessary, if not harmful. For this practice we have chiefly the hospital O.P's. to thank. If the hospitals had long ago set their faces against the indiscriminate giving of useless drugs, had revised their pharmacopœias, and cut out the absurd out-of-date mixtures which are found in them (Guy's as bad as any of the others), then the man in the street would not have been so surprised to find his doctor at home doing likewise.

It is a usual sight for me to see when going into some artizan's home, say to treat a baby or the master of the house, the large familiar black bottle with the imposing label bearing the familiar inscription "one tablespoonful to be taken twice (or thrice) a day, and, on enquiry, to be told that the wife or daughter has been and is attending weekly or fortnightly at one of our large hospitals, and is being treated for some slight or imaginary complaint by means of this ridiculous medicine and nothing else.

When the new Insurance Bill has become law, supposing the chemists to be paid by contract like the doctors, we shall have an opportunity of doing them a good turn by reducing our prescriptions to drugs, the effects of which we are fairly sure of, instead of the half dozen items in the ordinary ℞ of to-day.

These sure and certain drugs we could almost count on the ten fingers of our hands. For the rest, I imagine the benefits received from them would be about as great as if we gave our patients a solution sacch. ust.

I once knew a doctor whose stock remedy was a weak solution of picric acid! and he had a large practice.—Yours, etc.

Chadwell Heath, T. RENELL ATKINSON.
20th August, 1911.

A Correction.

DEAR SIR,—I do not for a moment suppose that anyone would be misled by the error in the notes published on page 350 of your last issue, but in the fifth line from the bottom of the left-hand column, normal saline is said to consist of "boiled water to which 1 oz. of sodium chloride (salt) is added to each pint." It might be dangerous not to call attention to this substitution of ounce for drachm.—I am, dear Sir, yours truly,

HERBERT FRENCH.

62, Wimpole Street, W.
21st August, 1911.

[We are grateful to Dr. French for pointing out the above unfortunate printer's error in the last issue of the GAZETTE.—ED. G. H. G.].

House Appointments.

DEAR SIR,—With the proposed institution of the new regulations for Out-Patient Officers has come the time to question not only the justice and advisability of the increase in labour that these regulations involve, but also whether the duties of the House Officers in this hospital are not already excessive.

The ordinary appointments, *i.e.*, those held by unqualified men, on the whole, entail a reasonable amount of work, although Externs, Assistant Surgeons' Dressers sometimes, and full Surgeons' Dressers in their take-in week, have far more to do than can with justice be expected of them.

But when a man becomes qualified, and enters on a probably uninterrupted series of house-appointments, his new responsibilities, instead of being mitigated by a less strenuous existence than heretofore, are accompanied by longer hours and closer and more exacting ties. In the case of an Assistant House-Surgeon, granting that for three weeks out of four his duties

are comparatively light, his work during his take-in week is as exhausting as it is unreasonable. During this week, not only is it practically impossible for him to leave the hospital, save under uxceptional circumstances—a state of things in itself sufficiently pathetic—but he can count neither on regular meals nor on undisturbed and adequate sleep; and on his Surgeon's Out-patient day he is often compelled to work for practically fifteen hours at a stretch, and when at last he crawls to bed, he is liable at any moment to be dragged therefrom.

Turning now to the work of the Out-Patient Officers, which those in authority evidently consider at present insufficient, for the six weeks that each Out-Patient Officer spends among Medical Out-patients he has very little to complain about, so far as he himself is concerned, for his "off-time" is ample. It is true that no one can reasonably expect him to see the endless succession of patients that characterises Mondays and Wednesdays with any benefit to himself, the patients, or the hospital drug expenditure.

But it is during his six weeks in the Front Surgery that the Out-Patient Officer realises how trying is the work and how grave the responsibility imposed upon him. Under the present arrangements, however, he at least has one or two free afternoons, although even his right to these is called in question by the authorities. When, however, the new regulations are in force he will be tied to the exacting round of surgery duties all day and every day.

You, sir, suggested an alternative scheme which gives each Out-Patient Officer the not excessive holiday of one day per week, and, although many may think this insufficient, it is, nevertheless, infinitely preferable to no holiday at all. For, although the Out-Patient Officers nominally have their evenings free, at 6.30 p.m., an armchair or a bed alone has any attraction for them.

I feel strongly that being confined to the surgery and its atmosphere of unsavoury patients for many hours on end is absolutely incompatible with the exercise of even ordinary medical intelligence, and I would suggest that the appointment of a larger number of Out-Patient Officers and the division of work in the surgery into "shifts" would be to the better advantage of the hospital and its patients, as well as making the appointment of Out-Patient Officer attractive, and even beneficial, instead of as at present one of infinite possibilities which can never be realised. —I am, dear Sir, yours truly,

H. W. BARBER.

Reviews, etc.

The Sensibility of the Alimentary Canal. By A. F. Hertz. (Oxford Medical Press.) 5s.

As explained in the author's preface, this book is practically a reprint of the Goulstonian Lectures of this year. We consider that their publication in book form is a particularly happy idea, because, not only is it impossible to grasp everything of importance when hearing a lecture read, but it is one thing to read a small well-printed volume such as this, and quite another to have to wade through several closely-written pages of the *Lancet* or *British Medical Journal.*

A feature that renders the book of exceptional value is that the greater number of the author's conclusions are based on various experiments—many of great ingenuity—performed by himself and his co-workers on human beings.

Such a method of research has been grossly neglected in England, and it seems a great pity that more facilities are not afforded to the physiologists and pharmacologists attached to our hospitals for carrying out such research on the patients in the wards and in the various Out-Patient Departments.

Unlike many original observers, the author has not ignored the work and conclusions of his confrères; thus, the valuable experiments and theories of Mackenzie, Lennander, Head, Roux, Müller, Langley, and others are given full consideration. Like Cleon, he has not "ignored the other's art," but has evolved a logical and connected thesis out of the somewhat disjointed and sometimes contradictory material at his disposal.

It is not our intention to attempt to summarise the subject-matter of the book. Those who have not the time or the inclination to read it in its entirety will find an excellent summary of Dr. Hertz's conclusions at the end.

We would merely remark on a few points that seem to us of special interest.

In the chapter on "Sensations produced by Chemical Stimulation," the view is put forward that the symptom of heartburn—so common in cases of sthenic dyspepsia—is due to a regurgitation of alcohols, formed by the action of yeasts and sarcinæ on carbohydrates.

That it cannot be due to the regurgitation of acids from the stomach is shown, apart from Dr. Hertz's experiments, by the fact that the symptom may occur in people whose gastric contents are neutral in reaction. The theory can hardly be considered proven; but in view of the extreme sensibility of the mucous membrane of the alimentary canal to alcohol, it seems a very plausible one.

The short chapter on "Emptiness and Hunger" is excellent, so far as it goes; considering the great interest of the subject of hunger, it is surprising how very little is known about it, and how few attempts have hitherto been made to increase our knowledge thereof. That hunger is a combination of two sensations of different origin—local and general—seems fairly clear, and the theory that the local sensation is due to vigorous peristaltic movements of the empty stomach, associated with increased tone of its wall, and hyperexcitability of the afferent nerves of the muscular coat, is reasonable enough. It also falls into line very prettily with the author's explanation of the causation of the sensations of fulness and pain in gastric and intestinal disorders.

All three sensations—"local" hunger, fulness, and pain—would seem to depend primarily on abnormal tension in the muscular coat of the stomach, and, just as the difference between fulness and pain is merely one of degree, so the "local" sensation of hunger probably only differs from the other two in that it is produced when the stomach is empty.

But when we come to consider the general sensation of hunger, we are dealing with a phenomenon not clearly understood. Dr. Hertz describes it as "a general sensation of malaise and weakness in the body as a whole." Such it may be in some cases, especially after more or less prolonged starvation, but the prodigious appetite that is the fortunate possession of healthy people, when taking a holiday in a bracing climate, can hardly be described as a feeling of malaise and weakness, and it is certainly not due entirely to the local sensation of hunger.

And we would suggest that the feeling of malaise which overtakes a person who is "run down" or "out of sorts," is, in reality, exactly the same as the similar feeling produced in a healthy person by prolonged starvation. In the former case, owing to the depressed state of health (which phrase, we admit, is a vague one), the tissues are unable to perform their proper metabolic processes, however adequate the supply of food material; in the latter case, the same result is produced simply because the supply of food material is insufficient for proper metabolism. A keen appetite, on the other hand, is an indication of rapid metabolism; too rapid in such a condition as Graves' disease.

In perfect health, which condition is always accompanied by a healthy appetite, metabolism is in a state of equilibrium; in ill-health and starvation the functions of the various tissues are carried out sluggishly and inefficiently, and thus the output of the internal secretions, whose production in sufficient, but not excessive quantity, is so essential to health, is inadequate; and in Graves' disease, which is characterised by an abnormal appetite, the equilibrium is disturbed in the other direction.

But, perhaps, the most important and interesting chapter in the book is that dealing with visceral pain. In this the well-known views of Mackenzie and Lennander are discussed, and the author pertinently points out that their denial of the existence of true visceral pain was based on a misconception of the natural stimulus that obtains in the alimentary canal; this stimulus, as already pointed out, is tension, which is exerted on the muscular coat of the bowel, and on the fibrous capsule of such organs as the liver and spleen. The stimuli employed by Mackenzie and Lennander—cutting, pricking, and pinching—do not occur under natural conditions.

The author does not attempt to disprove the existence of Mackenzie's "referred pain," nor does he deny the extreme sensibility of the parietal peritoneum and subserous connective tissue, which sensibility Lennander considered accounted for the various forms of abdominal pain. But he conclusively proves that there is such a thing as true visceral pain, and his arguments, based chiefly on his own experiments, seem to us perfectly logical and incontestable.

Of particular interest from a clinical point of view are the discussions of the causation of pain in gastric and duodenal ulcer and in pyloric stenosis, and the analysis of the causal factors concerned in the production of pain in an attack of appendicitis. That the pain in such an attack usually starts in the region of the umbilicus, and eventually settles down in the right iliac fossa is a fact learnt by every student during his first week in the wards; but we question whether the majority of those in authority, much less of the students themselves, have ever considered for a moment why this should be so. Dr. Hertz points out that the initial umbilical pain is of appendicular origin, and due to the increased tension produced in that organ by inflammatory products. Such appendicular pain is, like that produced in the movable part of the small intestine, localised rather vaguely in the mid line somewhere near the umbilicus. Whereas, pain produced in fixed parts of the intestine and in immobile organs, such as the gall-bladder, is localised more accurately; and in the case of the parietal peritoneum, as shown by Lennander, the localisation is practically perfect.

Thus, when an appendix, situated in its normal position, becomes inflamed, the pain is first localised to the region of the umbilicus; later, should the peritoneum become inflamed, the pain is felt in the right iliac fossa and is of peritoneal origin. In addition, another factor comes into play, namely, referred hyperalgesia of the skin and deeper structures of the abdominal wall.

We would venture to suggest that Dr. Hertz's explanation of visceral pain in the case of the alimentary canal might be applied with equal justice to the pain of angina pectoris. That much of the latter is often a referred pain, due, as Mackenzie suggests, to an irritable focus in the spinal cord, we do not doubt, but this referred pain is not invariably present, and we would recognise, as many others have done, a true cardiac pain due to abnormal tension in the cardiac muscle, especially and most commonly that of the left ventricle. Such abnormal tension satisfactorily explains many forms of cardiac pain, which are not true angina, and the post-mortem findings in many cases of the latter, namely, atheroma and narrowing of the coronary arteries, leading to imperfect nutrition and consequent fibrosis of the heart muscle, and aortic regurgitation and stenosis, which increase the intraventricular pressure, would support this view. Moreover, the fact that attacks of angina cease, should free mitral regurgitation supervene, is of interest in this connection, for, of course, with the mitral regurgitation the intraventricular pressure falls and the tension of the wall of the left ventricle consequently markedly diminishes.

In conclusion, we congratulate Dr. Hertz on the originality of his work and the logical arguments whereby he amply justifies his conclusions. In a recent number of the GAZETTE the lack of original thought among medical men and students was deplored. We would also deplore the rarity of original books on medical subjects such as the one under consideration, the author's work on Constipation, and Dr. Mackenzie's "Diseases of the Heart." Such books are, it is true, of little value from the point of view of the qualifying examinations, for the scope of the latter is quite rightly limited, since a man may make an excellent practitioner though he possess not an atom of originality. But, just as the honours examinations at the Universities are designed to suit the man with an extensive knowledge of current literature, and an original turn of mind, so should it be with the University medical examinations. The questions set are too often purely technical; theoretical discussions are but rarely asked for, and the echo of the one-volume text-book has every bit as good a chance of distinguishing himself as the scientific genius.

Births.

PURDOM.—On August 2nd, the wife of Dr. Percy Purdom, of Sutton, of a son.

WOOD.—On 18th August, at 4, Harewood Terrace, Darlington, the wife of F. T. H. Wood, M.D., D.P.H., of a son.

Death.

INCE.—On the 23rd August, at his residence, Montague House, Swanley, Kent, Surgeon-Major John Ince, M.D., I.M.S., aged 81 years.

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE.

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Passim.

WE so often hear opinions which have been expressed in the GAZETTE, spoken of as the opinions of Guy's Hospital, that we feel called upon to state definitely that this is not and cannot be a fact. The GAZETTE in no way represents the opinions of the Staff of the Hospital, and it is obviously impossible for it to reflect the ideas of such a composite body as the students. For Passim the Editor alone is responsible, and any ideas or remarks contained therein rest upon the authority of the GAZETTE and of the GAZETTE only. Anyone who disagrees with us, and we know and trust that there are many, has our correspondence column in which to express his disagreement.

WE regret to announce that Dr. Rippmann is at present warded in Stephen, although fortunately his complaint is not very serious. It is hoped that he will soon be able to resume the duties which, with his well-known enthusiasm and boundless capacity for hard work, he carries out so efficiently. We feel sure that all those who, like ourselves, owe Dr. Rippmann a debt of gratitude for his generous help in those unpleasant days of preparing for examinations will join in our hearty wishes that his recovery may be a speedy and a complete one.

THE current number of the *British Medical Journal*, which is its educational number, has on its front page a dirge in the form of an introduction to Medicine, which descends to depths of pessimism which even our acquaintance with former educational numbers had not led us to expect. Fortunately all those who intend to join our profession in October will have already made up their minds on the subject, and so the wailing of our somewhat weighty contemporary will be without any serious capacity for harm. It is, however, greatly to be regretted that a Journal which is one of the most representative medical journals of the day, should see fit to paint in such dismal colours the prospects of the profession to which we belong. Pessimists are admirable and extremely useful people as long as they refrain from preaching their doctrines under the seal of authority, but to a great many people, to be told that X is the income which they, as average medical men, can expect to earn, is equivalent to putting a stop to their ambitions, and setting a limit to their ideals. When, however, we seek the basis upon which this almost ludicrous lament is built, we find not a reasoned argument that our profession is overcrowded, or that its field of usefulness is lessened, but merely that familiar bogey, Mr. Lloyd George, and that equally familiar cry of a 4s. capitation fee.

IT is so deadly easy to stand aside; it is so tempting to ascribe failure to a partial fate; self-pity is so luxurious. While not for an instant believing that our stately contemporary the *British Medical Journal* realised to what attractive and pernicious doctrines it was lending its authority, yet we know them to

underlie the unreasoned pessimism of its introduction, and we fear that their discovery is capable of a great deal of harm. The attractions of inactivity are such that it is extremely dangerous to point them out, and an article such as the one to which we take exception is a direct inducement to inactivity in spite of its futile disguises in the shape of counsels to hard work. A number of our correspondents have objected to our championship of the National Insurance Bill, but we would insist that the possible harm which this Bill may do to the profession is minute compared to the potential damage contained in the front pages of the *British Medical Journal* whose argument is based upon objections to the Bill.

IT may be, and no doubt is, true that there are few fortunes to be made in Medicine, but fortunately some of us have ideals which are not limited solely by so many pounds per annum. We know a number of practitioners who earn even less than the X which is so insisted on in students' numbers, and who even so would not exchange their life for any other, even though the income attaching to it were a great increase on their present one. Naturally, the profession has its discontents; as we have said above, self-pity is a great luxury. We do, however, most firmly believe that those who would warn novitiates from our gates are doing a very bad thing for the profession, and for the very men they profess to help. We have, fortunately, a somewhat antiquated belief in merit and in the fact that even in these days of democracy it mostly manages to obtain an adequate livelihood, and so we would advise those who have read the *British Medical Journal's* article to forget it; and would say to those who have not —don't !

ON Friday, October 6th, will take place a conversazione under the auspices of the Physical Society. Last year, for the first time, a conversazione replaced the annual address before the Physical Society, and was a great success. This year it will be preceded by a dinner in the College at 7.15, which should prove a great convenience to old Guy's men. There will be no speeches. Tickets for the dinner (3/6) may be obtained from the Hon. Secs., C. H. Rippmann and G. W. Goodhart. At 8.45 Dr. Pavy, supported by Sir James Goodhart, Dr. Taylor, and Dr. Savage, will receive the guests. It will be a great pleasure to see our distinguished Consulting Staff, and we expect a large number of old Guy's men to turn up. The Staff, we understand, all intend to be present. Drs. Boycott, Eyre, Iredell, and others will show us many things of interest, and there will be several good trade exhibits. There will also be a band and refreshments to stimulate good-fellowship and conversation. All past and present Guy's men will be heartily welcome.

WE are asked to announce that the subject chosen for this year's discussion by the Physical Society is "Bone-setting." The meeting will take place early in December, and we understand that already Mr. Lane, Mr. Rowlands, and Dr. Beddard have promised to take part. This much debated subject of the manipulative treatment of joint injuries should provide an excellent discussion, and it should be extremely interesting to hear the matters thoroughly thrashed out.

IN the last number of the GAZETTE we urged the necessity of giving more detailed instructions to patients suffering from syphilis, and suggested the practical utility of a printed form such as is already used at some hospitals for venereal disease. We are glad to say that the suggestion seems to have met with fairly general approval, and that steps are being taken to bring the question before the authorities officially, so that it is to be hoped that the matter may, in due course, be effectively dealt with.

THERE seems to be a totally mistaken idea that the "new" regulations by which dressers are not allowed to deal with any case on their own responsibility *are* new. Reference to standing orders will easily verify the fact that the practice of so doing has never been counte-

nanced by the authorities. Under the old conditions, however, the O. P. O. was unable, owing to the many duties which devolved on him, to see every case and the new regulations merely endeavour to make it possible for him to do so. We would wish it to be understood that we fully agree with the necessity of ensuring that *every* case coming to the Surgery shall be seen by a qualified man, although this opinion is one which is naturally not shared by many future dressers. While quite seeing the necessity, therefore, of some rearrangement of the duties of the O, P. O's, we have attempted to point out that the new regulations will not accomplish what is intended by them, in that they will entail too much work on the O. P. O's to enable them to carry out their duties efficiently.

Under the present arrangements there are two O. P. O's in medical Out-Patients all day, and by careful enquiry we find that these two men are generally fairly hard at work from 10.30 until well on in the afternoon. Under the new regulations, there will be only one man at work in Out-Patients during the morning, while the number of patients to be seen will be increased, since the "old" babies are in future to be treated in Out-Patients. It seems, therefore, fairly certain that the O. P. O. working in medical Out-Patients will have quite enough to do, while no one who has a working acquaintance with the Surgery will doubt its capability of keeping two men thoroughly busy during the day. We see, then, that the O. P. O. whether in the "front," or the "back," will be hard at work during the seven to nine hours that he is on duty, and therefore would insist on the necessity of ensuring him some time of rest and recreation during the week. This need is met by the suggested appointment of five O. P. O's, working according to the rota published in our issue of July 22nd, which we venture to believe would conduce far more to the efficient working of the Out-Patient system than the present scheme which is to be put upon its trial on October 1st.

A correspondent in our present issue writes us on the subject of "Originality in Medicine." While flattered by his approval of sentiments we have previously expressed, we regret that he should have deduced from them a line of thought with which we entirely disagree. Our correspondent laments the trouble that is taken to ensure an adequate growth of mediocrity, and fears that "genius," which he does not define, but for which he appears to have a profound respect, may be stunted thereby in its growth. To our mind the average to which any profession attains is the direct determining factor in the heights to which its exceptions may soar. We say exceptions intentionally, because a genius is only a genius in that he is abnormal. To attempt to *produce* genius is as futile as the search for the philosopher's stone, and our whole aim in endeavouring to advance any profession must be to raise the standard of mediocrity in order to further the flights of genius. Mediocrity is on the road to greatness, and it is only by insisting that all who tread the path of knowledge shall reach the milestone of mediocrity that we can do anything to increase the numbers of those who pass it and attain the realm of greatness.

The Committee of the Swimming Club wish us to point out that the swimming bath is only available for the men on Tuesdays, Thursdays, Saturdays, and alternate Sundays. They also wish us to ask men not to enter the bath after 11 p.m. on these days. It is hoped that this rule will be strictly adhered to as it is only due to the courtesy of the nurses that the bath is available for the men at any time.

The following letter was recently received from a gentleman who desired to sell his body to the Hospital:—

> "Dear Sir,—*I am a pure-blooded Parsee and am directly descended from the ancient stock.* Years ago I made my name in English Literature and our best critics have proclaimed me to be a literary miracle. I am the author of poetical, dramatic, and fiction works, and mine is the first instance of a Parsee, or for the matter of that, any Indian, being acknowledged in English Literature as a poet of genius and a literary miracle.
>
> "This being the fact, I have good reasons to believe that the study of my cranium would prove of great advantage to the progress of Psychology."

A Queer Clinic.

An Impression.

OUT of the traffic storm of Oxford Street I pass into Poland Street, and near the further end notice the newly white painted house with "Quinton Polyclinic" in large letters high up on the front wall. There is a shop on the ground floor, so the latest hospital locates itself modestly in an upper part. Ascending a steep staircase, I pass through a white enamelled door to a white waiting-room filled with a small crowd of women and babies. I present my card to the superintending Sister, who is shepherding the patient flock, and she shows me into an adjoining room where two medical men are sitting at little tables. On the left, a thin mother and a thinner baby are being interrogated by a genial doctor muffled to the chin in spotless white. It is the old, old story of gastro-enteritis told in the old, old way that the doctor listens to. Notes are taken in a big book, a few simple directions as to artificial feeding are given, and these are emphasised by the presentation of a typewritten paper of directions for the preparation of the same. No drugs are prescribed. It is a "one cure" treatment, and that is, the "Isotonic plasma," the Quinton plasma, or, in simpler language, "modified seawater."

There is not much discussion in the clinic. I note the chief remarks of the doctor are of an optimistic character. His cheery tone obviously inspires hope in the mother as he gives her a slip of paper inscribed with the dose of the seawater to be injected, and directs her towards the mysterious chamber above, whither I immediately follow her.

Here in a small room glistening with white enamelled walls and polished glass is a picturesque nurse in a pink uniform occupied in giving the famous "piqure." I carefully note the simple technique. Baby's upper clothing is removed; mother directed to hold the child with its face downwards on her lap; nurse notes dose of injection on the slip of paper, and takes hold of an apparatus which consists of a glass ampule containing the seawater solution. It is graduated in c.c. measures at one side, and at one end is a hooked hollow stem on to which is fixed an india-rubber bellows. The other end of the glass receptacle is narrowed into a fine tube to which is attached several feet of rubber tubing which terminates in a hollow metal needle. The rubber tube is closed with a clip. The needle is sterilised in a spirit flame by the nurse, and the child's skin is rubbed with hyd. perchlor. solution over the left scapula region. The needle is then thrust in and the clip on the tube removed and pressure made on the bellows. The "seawater" flows in, raising a large swelling of varying size. The amount introduced is measured off on the scale at the side of the ampule. The average dose appears to be 100 c.c., but the dose varies from 50 c.c. to 300 c.c., and the injection is repeated daily for several days. If the child is very bad, some of the solution (about 50 c.c.) is also given by the mouth. This is invariably retained in spite of previous vomiting. While the injection is being given, the glass reeeptacles hang by their hooked ends from rods around the walls. The puncture wounds are closed with gauze and collodion. I ask the nurse if there is any reaction. "Sometimes," she says, "with large doses in adults. I had a rigor and a temperature myself when I had a dose of 300 c.c. for dysentry the other day. Several babies in a more or less collapsed condition receive a "piqure" while I wait. I am told the treatment of adults for various kinds of skin diseases has been put aside for the present on account of the enormous number of gastro-intestinal cases in children that claim immediate attention and monopolise the resources of the institution.

Passing below once more, I find the genial doctor having a hasty luncheon on almonds and raisins. "One is rather off ordinary diet." he remarks, "in this atmosphere of gastro-enteritis."

Just as I enter the room a little man in a blue suit, with a large mouth and bright twinkling eyes, comes in too. His first words tell one he is a reporter on an important London newspaper. His paper has already "boomed" the "clinic," and he comes for more "copy." The reporter seems rather taken with the doctor's fruitarian diet, so I venture to tell him that the late Sir William Gull eat raisins as a light diet. He duly notes the fact on a piece of paper. Then he rains a variety of questions upon us, ranging from the cause of sneezing to the treatment of neurasthenia—in reporters! "I suffer from neurasthenia," he says, "and I should like to know if this seawater would do *me* any good, doctor? I am willing to pay you a fee for the treatment," he adds. The man in the aseptic surplice shakes his head.

"No, I don't think it would," he answers. "Not even by suggestion?" asks the jumpy journalist. "No," we reply together. "Try phosphoric acid, a few drops in water three times a day," says the doctor who was offered a fee. "Try the high frequency current," I say as a charitable contribution. Still the reporter is unsatisfied. He has evidently made up his mind that seawater is an universal panacea for the ills of humanity, and is thoroughly disappointed that he cannot have an opportunity of being able to make "copy" out of himself as "the marvellous restoration of a jaded journalist."

After some further discussion on the "Isotonic plasma," the cases and the treatment, I betake myself once more to the street, and as I walk leisurely along, my thoughts run somewhat as follows: Here is another new treatment supported by a benevolent philanthropist and boomed by the sensational Press. What is its value? Well, I think without doubt that it is of value, but is it anything new? Is it anything more than the subcutaneous injection of physiological saline solution? The Quinton experts say it is. The question, again, is: how far is this correct? The solution used is described as "modified seawater," but the formula is a secret of Monsieur Quinton and the chemists, Carrion et Cie, Paris. Why is it a secret? The reason given is that this secrecy insures it being accurate in composition, since it is prepared by only one firm! What does it cost? Five francs an ampule of 200 c.c. or 300 c.c. This sounds like business. Well, I am quite prepared to believe that if the head dispenser of Guy's chooses, he could turn out gallons of sterile Bermondsey plasma of a like potency, and that in a corner of the Front Surgery an effective apparatus could be contrived to run into the little bodies of the Borough babies that important watery constituent which has been drained from them by the action of germs within their gastro-intestinal canals.

FREDERICK VICARS, M.D.

N.B.—The solution used is said to consist of seawater 2 parts, with organically pure spring water (*not sterilised water*) 3 parts.

Appointments.

Civil.

CARR, T. E. ASHDOWN, M.B., B.S. (Lond.), has been appointed Assistant Surgeon (Resident) to the Cheltenham Eye, Ear and Throat Hospital.

Notes on Rodent Ulcer.

BY DR. IREDELL.

THE fact that rodent ulcer is not a common disease was recently illustrated by the remark of an old Guy's man who said that after twenty years in busy private practice he had never seen one. As over a hundred cases have been treated in the Actinotherapeutic Department since it was started in 1904, a few notes on the disease as seen there may be of some interest. The disease is usually said by the patient to start as a pimple. When seen in its earliest stage it is a pearly white nodule, although sometimes only a scab is seen. The nodule spreads at the edges, at the same time flattening in the centre, where it soon ulcerates. Its course varies; in one case a tiny ulcer had remained unchanged for 17 years; while in another case, the left half of the upper lip was destroyed in a few months. The edges advance slowly, in some cases destroying only the superficial layers of the skin. In these cases cicatrisation may take place in one part, while the ulcer spreads at another. This spontaneous cicatrisation, however, rarely occurs if the ulcer spreads to the deeper layers of the skin. As it spreads, the ulcer destroys every structure it reaches, whether it be bone, cartilage or skin, etc., and death may follow from pneumonia or exhaustion. It may occasionally spread deep to the skin, and in the case mentioned above in which the lip was destroyed, it was noticed to be thickened with growth before it broke down. The large majority of the cases occurred above the mouth and most below the eye.

Excision of a rodent in any position must be wide, and the drawbacks of removing the skin of the face in this position are obvious. Hence, the majority of cases are treated by some method apart from surgery, the most popular being X-rays, radium, and carbonic acid snow. These methods are painless, except the last, which is nearly so, and have the additional advantage of not destroying any healthy tissue. Finsen light, which has revolutionised the treatment of lupus vulgaris, has no effect on rodent ulcer, one case being treated regularly for six months without appreciable change.

The ultimate effects of this kind of treatment are shown by the statistics of the Actino-

therapeutic Department. Since 1904 over 100 cases of rodent ulcer have been treated, and over 70 per cent. remain cured at the present time. Rodent ulcer is a disease of late life, and those patients who have died of other diseases are included in this number. In treating rodent ulcer it may be remembered that although it resembles an epithelioma in many respects it never produces enlargement of the neighbouring glands, and therefore there is no necessity to take them into account. Unlike epithelioma, more than one ulcer may occur in the same patient. Most of the cases have been treated with X-rays. The method used has been to expose the ulcer and a margin of healthy skin round it to the rays once or twice a week. The reason of this is that by giving a small dose of the rays frequently the chances of an X-ray burn are diminished. Experience has shown that it is better, as far as possible, to increase the dose of X-rays and diminish the number of applications, until, at the present time, it is customary to give the maximum dose the skin will stand without being burnt, as measured by Sabouraud's pastille, and cases have occurred in which one treatment has been sufficient apparently to cure the ulcer. Whatever form, however, of actino-therapeutic treatment is used, it should always be continued after the ulcer has been apparently cured, otherwise it may recur.

Radium is used by applying it directly to the ulcer for a definite time, which varies with the amount of the salt used. It is probably just about as efficacious as X-rays. In the case of a radium application containing $22\frac{1}{2}$ mgms. spread over a surface 3 cm. square, the usual time for application is three-quarters of an hour, two pieces of lint and gutta-percha tissue being placed between the radium and the patient; if only one piece of lint is used the time is reduced. The application is repeated once a week for two or three weeks. In three weeks, at the earliest, the ulcer begins to heal over, and the treatment should be continued after the ulcer is apparently cured for two or three applications. If any redness is produced round the ulcer, the treatment should be omitted until this disappears.

CO_2 Snow is used in the form of a pencil, which should overlap the edges of the ulcer, and which should be pressed against it for from 20 to 40 seconds. A certain amount of burning pain comes on after the application, which is relieved by bathing with cold water.

In a favourable case the ulcer heals over in three weeks. The ulcer after treatment should be dressed with lint spread with boric or hyd. ox. flav. ointments, fixed in place with Mead's strapping. Though three applications are sufficient in a favourable case with any of these forms of treatment, it often happens that an ulcer after becoming a good deal better seems to remain stationary, in spite of the treatment being continued. If this occurs, the best plan is to change the treatment to one other of the three. As a rule, the ulcer will start to heal at once under the change of treatment, and will heal completely. The smaller a rodent ulcer is, the more amenable it is to treatment.

Another fact of considerable importance is that an ulcer which has recurred two or three times after treatment with X-rays is much more difficult to cure than one which has had none, and in a case like this, excision is the safest course.

A very bad case is that of a man, aged 56, who was recently under Mr. Eason in the Eye wards. Fifteen years ago he noticed a pimple on his face, which was excised, but recurred a year later. Since then it has been repeatedly cauterised and scraped, and then treated with radium, X-rays, and CO_2 snow. In spite of so much treatment the ulcer increased until the cheek from about an inch below the eye, part of the side of the nose, and the left half of the upper lip had been destroyed. Ulceration seemed to be extending under the skin up to the eye. He was seen by Mr. Rowlands, who said the only thing to do was to remove his superior maxilla, but the patient refused to have so severe an operation, and it was therefore decided to treat the ulcer by means of diathermy. This treatment is the application of the cautery, the heat being derived from a high frequency apparatus. A large electrode connected with the pole of the condenser is applied to the patient's back, the other pole of the condenser being connected with a blunt pointed electrode which is applied to the ulcer. The electricity passing between the two electrodes through the body is converted into heat, the temperature being highest at the pointed electrode, and gradually diminishing to the large one. The differences between this treatment and other forms of cautery is, that the heat from it penetrates more deeply than with others. Two months later, the ulcer, which was spreading rapidly upwards before the operation, had ceased to spread.

The difficulty with this patient was that the eye on the side of the ulcer was his only sound one, the other being blind. He was most emphatic in refusing to have anything done that might possibly injure his eye. It was, therefore, considered safer not to cauterize the ulcer within half an inch of the eye, but to trust to radium. Radium, however, seems to have lost power with him, and the outlook is not very good, as the ulceration, though not spreading, seems still to be present near the eye.

At Dr. French's Friday Out-Patients.

The Importance of Testing the Knee-jerks as a Routine Practice, especially in Patients complaining of Attacks of Abdominal Pain.

THE importance of not forgetting the gums and the jerks in all cases of acute and severe abdominal pain, in order to avoid mistaking for general peritonitis either lead colic or the gastric crises of locomotor ataxia, is familiar enough; but it is less commonly recognised that minor attacks of abdominal discomfort or pain, simulating either dyspepsia or chronic ulceration of the stomach, may be due to tabes dorsalis, especially in its earlier stages.

A fine big man of good complexion and physique was sent up to the hospital with the history that for more than a year he had suffered from recurring attacks of pain in the left hypochondrium, located chiefly about the tip of the 9th rib, not accompanied by vomiting, but with a feeling of nausea and with a distaste for food. These attacks came on at regular intervals of about six weeks, and each time lasted for about seven days, during which time the patient felt ill enough to stay in bed, though all the time desirous of being up and about his business. Between the attacks he felt practically well, though he said that he always brought up the cup of tea that he had the first thing in the morning. For the rest of the day he was able to eat well and was not sick. He was in the habit of drinking four half pints of beer a day, but never more than this, and he did not look alcoholic; the gastric symptoms, together with the definitely localised pain in the left hypochondrium, seemed very suggestive of gastric ulceration at first sight, but during the course of a routine examination it was found that the knee-jerks were completely absent, there was no tendon-Achillis jerk, and the pupils, although they reacted well to accommodation, did not react to light, though they presented the phenomenon known as hippus when light was thrown into the eye after it had been kept in the dark for a minute. The patient had had no lightning pains and he presented no Romberg's sign, but, a point which is in itself very suggestive of tabes dorsalis, one could seize the muscles of his calves and thighs and clutch them tightly without producing any pain in them by a degree of pressure which would have caused a normal individual to cry out. This deep analgesia of the muscles is a prominent feature of many cases of tabes, and it often occurs early. Locomotor ataxia rarely develops in patients in whom syphilis can be entirely excluded, and in the present case inquiry showed that there had been a chancre at the age of twenty, treatment having lasted only for a month.

The case illustrates the ease with which tabes dorsalis may be mistaken for, or treated as, simple dyspepsia or chronic ulceration of the stomach unless the knee-jerks and the pupils are tested by the routine measure in all abdominal cases: indeed, one of the objects of the patient's coming to the hospital was to find out whether gastro-jejunostomy was indicated owing to the way in which the abdominal attacks were not alleviated by the ordinary gastric remedies.

Papers by Guy's Men.

W. H. Bowen, M.S. Lond., F.R.C.S. Eng.—"Comforter" Otitis Media.—*Lancet*, September 9th.

Herbert French, M.D. Oxon., F.R.C.P. Lond.—Mediastinal Causes of Chronic Cough in Children.—*Lancet*, September 9th.

Lieut. Hugh Stott, I.M.S.—A Contribution to the Study of the Ætiology of Beri-Beri.—*Journal, Royal Army Medical Corps*, September Number.

Change of Address.

James F. Robinson, F.R.C.S. Eng., from 105, Park Lane, Croydon, to 27, Beaumont Street, Oxford.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

The Practice of Medicine. By Frederick Taylor. (J. & H. Churchill.) Price, 18s.

This volume, which is the ninth edition of Dr. Taylor's well-known text-book, needs no introduction to students and practitioners. The present edition has been brought thoroughly up to date, and several new articles and illustrations have been added. As far as it is ever possible to compress such a subject as Medicine into the tabloid form of a text-book, Dr. Taylor has succeeded admirably. The book is singularly free from those dogmatic errors which make so many text-books as irritating as they are inadequate. On the whole the volume is very well balanced, and diseases are accorded space somewhat in proportion to their importance; nevertheless, even now we feel that such subjects as colitis and constipation, for example, might well have been considered at rather greater length. Any criticism must be one of detail only, because the whole is undoubtedly good and well deserves the popularity which previous editions have earned for it. Some of the skiagrams we feel to be rather inaptly chosen, since they need an adequate knowledge of skiagraphy such as is possessed by few medical men at present, for their interpretation; but even so their inclusion goes far to remedy a fault common to many text-books of Medicine, namely, lack of illustrations. We would congratulate Dr. Taylor upon the issue of the ninth edition of his work, and feel sure that it will maintain its present position as one of the best, if not *the* best, student's text-book of medicine.

Some remarks on the Diagnosis and Treatment of Glycosuria.

CLINICAL LECTURE BY DR. A. P. BEDDARD.

GENTLEMEN,—Whenever in medicine we meet with a symptom like glycosuria which is common to a large number of conditions of which the pathology is unknown, uncertain, or most imperfectly understood, then a good clinical classification of cases is of the greatest assistance in practice. For, if once we can place our patient into the right category, then from past experience of similar cases we know something of the prognosis and treatment of the patient before us. My remarks will therefore be directed primarily to outlining how one may classify different patients who show the symptom of glycosuria.

Glycosuria, that is the passage of abnormal quantities of *dextrose* in the urine, indicates that there is a correspondingly abnormal increase of dextrose in the blood; and this in turn shows that there is a corresponding limitation in the power of the patient to assimilate, store, or utilise starch and the various sugars or other food-stuffs which lead to a formation of dextrose in the body.

This limitation of the power of the body to deal with dextrose may be temporary or permanent. Again, it may vary in degree both in different patients and in the same patient from time to time.

When, therefore, one is confronted with a patient apparently showing the symptom glycosuria, some of the first things to be determined are—(1) is the abnormal substance in the urine dextrose? And if it is (2) is the limitation of the assimilative power temporary or permanent? If permanent, will it prove stationary or progressive? What is the degree of limitation? (3) Another important question, which, however, I must leave unconsidered, is whether there is any obvious cause for the glycosuria which can be treated, such as gall-stones, syphilis, etc.

I. The first question—whether the abnormal substance in the urine is dextrose or not—may be easy or difficult to answer. Mistakes are frequent and serious. For it is a serious thing to frighten patients by telling them that they have sugar in their urine if they have not.

The usual method of testing for sugar is to boil Fehling's solution, add an equal quantity of urine and boil the mixture vigorously for 15-20 secs. If at the end of that time the fluid is unaltered in appearance the urine certainly does not contain abnormal quantities of dextrose. If on the other hand boiling brings down almost at once a dense orange or red precipitate, the probability is that the reducing substance is dextrose. This ought always to be confirmed by the fermentation test done with the usual precautions and controls in ureometer tubes. When this test is positive the urine may be considered to contain an abnormal quantity of dextrose. The only serious fallacy is the presence of lævulose alone; but cases of pure lævulosuria apart from simultaneous glycosuria are too rare to be of practical importance.

When, however, the boiling mixture of Fehling's solution and urine shows a slight or indefinite reduction, it must not be rashly assumed that the reducing substance is dextrose; it is just as probable that it is not. Nylander's bismuth test and the fermentation test should then be used. It must be remembered that a fermentable substance may be present in quantities too small to give a satisfactory collection of gas. When, therefore, the result of the fermentation test is negative or indefinite, the fermented urine should be filtered and tested again with Fehling's solution in order to see whether or not the reducing substance has disappeared. The possible results of these tests may be classified as follows:—

(*a*) *Nylander's test and the fermentation test are both negative.* It is, then, almost certain that the urine does not contain any abnormal substance; and that the slight reduction observed in the Fehling solution was due to concentration of the urine. Normal urine contains, besides traces of dextrose, urates and kreatin, in both of which are copper-reducing substances. Almost any normal urine if boiled vigorously with Fehling's solution for 15 secs. will yield a slight deposit on standing, although at the time of boiling no reduction was visible. When, however, the urine is concentrated and contains a high percentage of urates, a slight but obvious reduction may be seen while the mixture is being boiled. Nylander's test being rather less sensitive than Fehling's is a less good general test; but it has the important property of not being reduced by concentrated and otherwise normal urines, although it gives a positive reaction with all the other substances which reduce Fehling's solution.

(*b*) *Nylander's test is positive.*—When this test and Fehling's are both positive, the urine is certainly abnormal. The fermentation test is then applied. *When the fermentation test is negative,* the reducing substance is either lactose due to pregnancy and suckling, or compounds of glycuronic acid after taking drugs, or in rare cases a pentose or homogenetic acid. These substances can be severally identified by tests which cannot be detailed here. *When the fermentation test is positive* the urine contains dextrose either alone or with lævulose, or in very rare cases lævulose alone.

It is necessary to remember in drawing conclusions from the results of these tests that a urine may contain two reducing substances, one of which ferments and is removed by fermentation, like dextrose, and the other of which is not, like glycuronates.

After these tests have been performed, if there is still doubt about the presence of dextrose or, as not infrequently happens, there is a history of some unidentified reducing substance, which is now no longer present, the best way of forming a definite opinion is to test the patient's power of dealing with dextrose. For this purpose a test meal is given on an empty stomach, and may consist either of 100 grms. of dextrose in milk, or of a meal very rich in starch. The urine passed during the next six hours is collected, tested, and the dextrose, if present, estimated.

Mistakes and uncertainties arising from not following up by other tests an observed reduction of Fehling's solution are numerous and must be my excuse for going into these elementary details. The most frequent mistake is to ascribe to dextrose a reduction due to urates or glycuronates.

II. Having ascertained that your patient has glycosuria the next thing to determine is whether there is a temporary or a permanent liability to this symptom.

We have already seen that glycosuria depends upon a partial or complete inability to assimilate dextrose derived from various foods. In a majority of cases the unassimilated dextrose is derived from starch and various sugars; in a minority of cases we are dealing with dextrose also produced from proteid and fat. This decreased assimilative power may be temporary or permanent; and correspondingly if the patient is on an unrestricted diet his glycosuria will be temporary or permanent.

A permanent diminution of assimilative power and liability to glycosuria is *diabetes;* and every patient who possesses it should be considered and said to be suffering from that disease. There are less common cases in which the metabolic defect after lasting a certain time disappears completely and spontaneously; such patients may be said to be suffering from *temporary* glycosuria in contradistinction to diabetes.

Before saying a word about cases of temporary glycosuria, I want to define and get rid of another term, namely *alimentary glycosuria.* This term has lead to considerable confusion, because it is apparently held to imply some peculiar and innocent variety of glycosuria which has nothing to do with diabetes. The confusion has presumably arisen from the fact that there is a physiological as well as a pathological alimentary glycosuria. There are, however, fundamental differences between them, which may be best explained by taking examples. Suppose you have a diabetic patient who can assimilate 50 grms. of starch at a meal and no more. If you give him the 50 grms. there will be no subsequent glycosuria. If, however, you give him 100 grms. he will pass out in his urine during the next six hours the whole excess above what he can assimilate, namely 50 grms. and will therefore show the phenomenon of alimentary glycosuria. Such an instance would be an example of the pathological variety for two reasons: because it followed eating starch, and because there was a definite limit of assimilative power beyond which any excess of carbohydrate food was passed out almost quantitatively. A healthy man can eat an unlimited quantity of starch without showing alimentary glycosuria; therefore every alimentary glycosuria following the ingestion of starch is pathological. There is a limit, however, in health to the quantity of any given sugar which can be eaten without subsequent glycosuria. Suppose a healthy man takes 100 grms. of dextrose, none will appear in the urine. When he takes 150 grms. he may pass 0·25 grm. in his urine; but if the dose is raised to 200 grms. he may not pass more than 0·5 grm. Such an alimentary glycosuria is physiological, and is due to the passage into the lacteals of a small quantity of dextrose which therefore escapes the liver and reaches the general circulation.

Having ascertained the character of a pathological alimentary glycosuria, the next point to determine is what class of case shows this phenomenon. The answer is that every case of diabetes and of temporary glycosuria shows it.

There are, however, numerous cases of both permanent and temporary glycosuria which show a continuous excretion of sugar in addition to the increased excretion due to unsuitable meals. Such cases are more severe of their kind than when alimentary glycosuria alone is present. The distinction between pure alimentary glycosuria and a continuous glycosuria can not be drawn by examining specimens of the whole day's urine, but by finding that the urine passed on rising in the morning is either free from sugar or contains no more than traces.

We must now return to the question of temporary and permanent liability to glycosuria, and whether it is possible to distinguish the one from the other except by waiting to see what time will show. It may be said at once that every case of glycosuria in which the dextrose in the urine is not wholly derived from carbohydrate food will certainly be permanent. In fact in temporary glycosuria the quantity of dextrose in the urine is generally small and rapidly disappears when the carbohydrates in the food have been reduced. It is notorious that head injuries and fits may be followed by temporary glycosuria. Worry and mental disturbance aggravate diabetes, and if sufficiently severe seem to be capable of producing temporary glycosuria in apparently healthy people. I know a gentleman who some years ago went to be examined for life insurance while his wife was suffering from diabetic coma. Dextrose was found in his urine for a few days. Subsequently his assimilative power was determined by test meals and found to be normal; his urine has never again been found to contain sugar.

The acute infectious fevers have only occasionally been followed by temporary glycosuria. When the case has been one of mumps, it is thought that the disease has affected the pancreas. I have seen one case in which a mild and uncomplicated attack of lobar pneumonia was followed a week after the crisis by a glycosuria which only disappeared after a week of carbohydrate-free diet. Subsequently the boy's metabolism became normal. There are many drugs which cause an excretion of glycuronates, and occasionally of dextrose as well. Such drugs are morphia, chloralamide, chloral, cocain, chloroform, alcohol, thyroid, adrenalin, and poisonous doses of CO and mineral acids, etc.

The great difficulty in being certain that a glycosuria apparently due to one of these causes will prove to be only temporary is that the same factors will also aggravate a permanent glycosuria. One is therefore in doubt whether the temporary cause has produced a temporary glycosuria, or whether it has aggravated and brought to light a permanent liability to glycosuria which might sooner or later have spontaneously become obvious. Test meals are of great assistance in forming an opinion. Further, a family history of glycosuria would make one suspect that an intermittent glycosuria would sooner or later prove permanent.

Boils and other acute inflammations of the skin are common complications of diabetes. It is also well-known that boils, etc., greatly reduce for the time being the patient's assimilative power. I have come across several cases in which an acute dermatitis has apparently been the cause rather than the result of a temporary glycosuria. I saw a middle-aged gentleman who had had two severe attacks of boils. In the first of these there was no glycosuria, in the second he developed slight glycosuria. This was treated by vaccination and without change of diet; the boils and glycosuria disappeared together. There was not a family history of glycosuria, and test-meals did not reveal any tendency to permanent glycosuria. In another gentleman an acute attack of lichen planus was accompanied by slight glycosuria, which is known to have been previously absent. The glycosuria disappeared spontaneously when the dermatitis was cured. This patient had a family history of glycosuria, and although he has not relapsed on an unrestricted diet, one would be doubtful about the future.

It is extremely likely that cases of temporary glycosuria are much more common than is generally supposed. A majority of the cases probably escape detection altogether unless the urine happens to be examined for life insurance or as a daily routine when under medical observation. But little has been written about these cases, which are interesting and deserving of careful observation.

III. Having determined that a patient is suffering from permanent glycosuria, we have to consider both the degree of the diabetic estate and whether it is likely to prove progressive or not; for upon these considerations the treatment and prognosis will be based.

Diabetic patients may be roughly divided into two great groups of cases, according to the source of sugar in the urine—(1) *Mild cases* in which the sugar is derived entirely from carbohydrate in their food. It necessarily follows that when they are placed on a carbohydrate-free diet their urine will sooner or later become free of sugar, and there is no danger in putting

them straight on to a rigid diet. (2) *Severe cases* in which dextrose is derived not only from carbohydrate food, but also from proteids and fats. Consequently no matter how rigid and carbohydrate-free the diet, the glycosuria still persists. Even in complete starvation the urine will not become free of sugar, because energy has then to be obtained from the breaking down of proteid and fat, and in this process dextrose is produced. Further, it may be extremely dangerous to put a case of severe diabetes straight on to a rigid diet. For, if you deprive him altogether of starch you oblige his liver to metabolise large quantities of fat without an adequate supply of carbohydrate; and this is the condition which favours the production of β-oxybutyric and diacetic acids. The effect, therefore, of a sudden change to a rigid diet may be to increase so enormously the production of these acids as to produce an acute poisoning of the body by them—a condition we call diabetic coma.

It is convenient for the purposes of classification and treatment to recognise a third group of cases of intermediate severity. In them the glycosuria is greatly reduced, but not stopped by a carbohydrate free diet, and in order to free the urine from sugar it is further necessary to limit the intake of proteids or to prescribe a day or two of more or less complete starvation. It will not be possible for me to deal further with this group of cases. At first they may show considerable improvement when placed on an appropriate diet, but sooner or later most of them progress into the severe type of the disease; and the younger the patient the more certain is this to take place.

Confining our attention to the two extreme types of the disease, the mild and severe, it may be asked how are we to distinguish the one from the other except by trying the effect of a rigid diet. In a majority of cases the two can be separated almost at sight. A well-covered elderly patient whose urine is free from diacetic acid is certainly not a severe case, and can be safely put at once on to a rigid diet. But a very thin young or middle-aged patient whose urine contains diacetic acid and whose breath smells of acetone is just as certainly a severe case, who cannot be placed straight on to a rigid diet without considerable risk of diabetic coma. It cannot be too often repeated that this risk is very real and that, if only you will take it, you won't be long before you have the satisfaction of sending a patient into coma within a week or fortnight of beginning your treatment. In such a severe case, and in all cases of doubt, the carbohydrates in the food should be reduced gradually. Begin with a safe quantity of carbohydrate, like 100 grms. a day, and reduce it slowly, watching the effect.

Having dealt with the classification of diabetic patients, let us now consider in outline their treatment, which I need scarcely add is, in the main, treatment by diet.

1. The object of treatment of a *mild* case is to free the urine of sugar as soon as possible, and to keep it so. We may proceed to do this in the following way. Place the patient straight on to a rigid diet. It may take but a day, a week or a month to rid his urine of sugar. The longer it has taken to do this, the longer must we keep him on the same rigid diet after the glycosuria has stopped; in any case, a month is none too long a time. There are two reasons which make this continuation of the rigid diet necessary. In the first place, kidneys which have long been exposed to an excessive percentage of sugar in the blood become relatively insensitive to smaller percentages, which may still be above the normal. Consequently, the glycosuria may stop before the percentage of sugar in the blood has returned to the normal. It is therefore necessary to give the renal cells time to regain their sensitiveness to dextrose, so that one may be sure that the slightest increase of sugar in the blood will at once be shown by glycosuria. In the second place, as long as there is an excess of sugar in the blood, the tissues are being swamped and damaged by dextrose which they cannot use. Once rid the tissues of this excess of sugar and they will slowly regain some power of using dextrose. The recovery may be slight or great (its magnitude cannot be prophesied beforehand), but in a majority of cases it is very material. For instance I have seen a patient improve in one month from being unable to eat any starch without glycosuria to being able to have 250 grms. of carbohydrate a day.

Having thus given your patient ample time in which to develop a recovery of assimilative power, it is next necessary to determine to what extent he has done so. The patient is given with each of his three meals increasing doses of starch, beginning with 25 grms. three times a day, and increasing each dose by 10 grms. or more until glycosuria is produced. The urine for each complete day has been collected and tested, and when the assimilative power has

been overstepped and dextrose has re-appeared in the urine, the sugar in it is estimated. Knowing now how much starch the patient had eaten and how much sugar was passed out in the urine, the difference between the two represents his assimilative power for starch on that day. The most generally convenient method of giving patients known quantities of starch is to give them weighed quantities of bread, calculating that ordinary white bread contains 50 per cent. of starch. After the bread has been weighed it may be toasted if the patient prefers it. The patient is now ordered a diet which will contain an amount of starch equal to one-half, and at the very most two-thirds, of his maximal assimilative power. A higher proportion than this should never be ordered, because it is necessary to be well on the safe side, and to make ample allowance for errors on the patient's part, and for daily variations in assimilative power. Further, it is never wise to work an impaired function too near its limit of capacity.

The assimilative power, when once determined, is not necessarily a constant quantity. In very rare cases it may slowly increase beyond what it was observed to be at the end of the month's rigid diet. In most cases it is necessary to take special precautions to prevent it deteriorating. Two or more times a year the patient should take continuously for a fortnight or more a rigid diet; further, it may be necessary to intersperse rigid days in every week or once a month. Two varieties of decrease of assimilative power must be recognised—temporary and permanent. A temporary decrease may be due to infective diseases, intoxications, such as the general anæsthetics, worry, and mental strain, and, most important of all, to a carbohydrate debauch. Few patients realise, and you should never fail to warn them, that by letting themselves go for a week at unlimited sugar and starch, they can easily lose all the assimilative power which they have slowly gained as a result of many weeks or months of self-denial.

A permanent decrease of assimilative power is a much more serious thing. Every case of severe diabetes is progressive, and would go on to diabetic coma unless in the meanwhile he dies of some other complication or disease. A majority of the mild cases are not progressive in this sense. Even if untreated altogether, they still do not pass into the severe form of the disease. But every severe case has probably been through a stage when he would have appeared to be suffering from mild diabetes. This stage may be very short—a few weeks or months—and may escape observation. Nevertheless, whenever we see a case of apparently mild diabetes, we have to consider whether it likely or not to pass on into the severer type. The only certain way of deciding this point is to determine the assimilative power from time to time, and especially after each period of rigid dieting. If this power is a slowly or rapidly decreasing quantity in spite of appropriate treatment conscientiously carried out, then it is obvious that we are dealing with a progressive case. Other considerations are of assistance. The older the patient the less likely is he to be of the progressive type, and vice versa. A family history of diabetes, even of a non-progressive type, is serious, because a mild type in one generation may be inherited as a severe type in the next. I have known a family which contained four generations of diabetic patients; in the first two generations the type was not progressive, and in the last two it was.

When mild diabetes of a non-progressive type has been diagnosed, one not infrequently hears it said that it is only alimentary glycosuria; that this in an elderly patient is an infirmity rather than a serious disease; and that there is no necessity to urge the patient to diet. In my humble opinion, such an opinion and advice are entirely wrong, and for two reasons. In the first place, all the complications of diabetes, with the single exception of coma, are due to an excess of sugar in the blood, and are, therefore, just as likely to occur in a mild case as in a severe one. In the second place, it ignores altogether the great improvement in assimilative power which may follow getting the urine free from sugar. One has not infrequently seen patients on a partially restricted diet passing fair quantities of sugar, who after appropriate dieting have returned to the same restricted diet and remained free from glycosuria.

2. When we turn to the treatment of a *severe* case of diabetes, we are broaching a most difficult and complicated subject. It is almost impossible, except in very general terms, to lay down any scheme of dieting which is applicable to all cases. Individual differences are great; what suits one case may be unsuitable in another. As in every other treatment, the first thing to be clear about is that you know exactly the effect you are striving to produce, and then to try by experiment whether you can

produce that effect, and, if so, the best method of doing so.

As long as the disease has not progressed beyond the stage when the urine can still be freed from sugar, either by a rigid diet alone or by the additional reduction of proteids, the object of treatment is to put an end to the glycosuria, and so to improve the assimilative power. When, however, this is no longer possible, our objective is somewhat changed. As before, we still wish to reduce by diet the swamping of the tissues with sugar, and so to keep the assimilative power at the highest level possible. But, as I have already pointed out, when we reduce in such cases the carbohydrate food to anything approaching the level of a rigid diet, we thereby stimulate the production of acids by the liver. These acids in small quantities may not produce any appreciable harm, but in larger doses they become poisonous and finally dangerous to life. We have, therefore, to steer our patient between the devil of being unnecessarily swamped with sugar and the deep sea of being poisoned by acids, because too little carbohydrate is available in the liver. In other words, the diet must be a compromise, and should theoretically contain the least quantity of carbohydrate necessary to keep the production of acids within safe limits. Further, we have to arrange a diet which shall not only be suitable in quality, but shall also be capable of being eaten in quantities sufficient to cover the energy needs of the body; otherwise the patient will lose weight.

Unfortunately, it is necessary to have a great deal of information about the composition of the patient's urine and food, if we are to regulate his treatment with any hope of success. By success I do not, of course, mean cure; that is out of the question. In a majority of cases the disease is a progressive one, and success is measured by the degree in which the patient can be kept stationary or the progress of the disease be retarded. In few cases only is striking improvement in the severity of the diabetes obtained. The information necessary besides the total quantity of urine is its total and ammonia nitrogen, the acidity, the dextrose, and the excretion of one or more of the acetone bodies.

Further, we must know the patient's daily weight, and the amount and composition of his food. These data are necessary at first daily in order to determine the outline of diet to be followed; after that they are required perhaps once a week, and occasionally for longer periods in order to watch the progress of the case. The list of requirements is formidable; this unfortunately does not make it unnecessary, but does mean that there are many patients who can not be treated properly because the necessary information is wanting.

In practice we proceed by placing our patient on to a rigid diet, to which a known quantity of carbohydrate is added, beginning with about 100 grms. The carbohydrate is slowly reduced, watching the effect on the excretion of sugar and the production of acids, etc. In this way there is no risk of sending the patient into coma by a sudden restriction of diet, and we very soon get an idea of the severity of the case and of the amount of carbohydrate, if any, necessary to keep the production of acids within safe limits. We are now in a position to map out a course of treatment by diet, which may follow, roughly, one of two courses. In the first place, we may give the patient a more or less uniform diet extending over periods of weeks or months. The class of case in which this is successful and appropriate is not, speaking generally, a large one. The patients are still in an early stage of the complaint, and their disease is of the type which does not alter for the worse rapidly, a state of things found most frequently in patients who are not below forty. In the second place, there are many cases to which a more or less regular alternation of two diets is more suitable. One diet is either rigid or very restricted in the quantity of carbohydrates which it contains; it is given for periods of two or more weeks, and has for its object the reduction of the glycosuria to the lowest level possible in the case. In order to increase this effect it may be necessary to interpose so-called "vegetable" days on which, by giving green vegetables, a few eggs, plenty of oil, and alcohol, the intake also of proteid is greatly reduced; this diet assists further to reduce the glycosuria. The same effect may be produced even more effectively by occasional days of comparative starvation, on which the patient receives no food excepting feeds of vegetable soups or tea. The second diet has for its object the removal of the increased acidosis induced by the first. For this purpose carbohydrates have to be given in gradually increased doses up to 50—100 grms. a day. Thus, for a period of one to two months the patient would receive on two days in the week his previous restricted diet, and on the other five days the increasing

doses of carbohydrate. At the end of this period he would return to the first diet, and so on. This alternating dietary is most often suitable and necessary in advanced and rapidly progressing cases.

In very advanced or juvenile cases in which acidosis is considerable, and is rapidly increased by a period of restricted diet, one of the most effective ways quickly to reduce the acidosis is to give v. Noorden's oat-cure. For two or three days the patient receives no food excepting 250 grms. of oatmeal, 250 grms. of butter, and, if necessary, 100 grms. of powdered vegetable proteid. The oatmeal is cooked into gruel with water and the butter and proteid added to it; the patient receives a feed every two hours. Unfortunately, this diet is unpleasant to most patients, which is a very great drawback.

Speaking generally, severe and advanced cases of diabetes are rarely dieted too laxly; their great danger is that their diet is getting, as a whole, too rigid for them, and that acidosis is increasing to a dangerous degree, and will pass on into acid intoxication. This state of things is, of course, accompanied by corresponding changes in the urine; but there are, in addition, clinical symptoms of it which at once suggest that coma is threatening. The earliest and most constant of these symptoms is nausea and disinclination for food; others are obstinate constipation, loss of weight, irritability of temper, cramps in the limbs or stomach, and sensations of heat and cold about the body. Whenever these symptoms have come on and are well marked, or the patient is already getting stupid and sleepy, special treatment is required. He should be put to bed at once, and for one or two days receive no food at all, excepting about 6—8 oz. of brandy, given together with abundant sodium bicarbonate in water, soda-water, or Vichy water. For the thirst nothing is better than plenty of lemonade. At the end of two days, if coma has been so far warded off, the patient may be given thin gruel and diluted milk, and so gradually be got on to a fuller diet as fast as his delicate stomach will allow.

No one can be more conscious than I am of the sketchy character of these remarks. My object has been to attempt to give you a bird's-eye view of glycosuria as a whole, and some idea of the various kinds of cases which are grouped together because they have this symptom in common.

A Case from Clinical.

R.P., 3 years, admitted to Miriam, under Dr. Hertz, on August 22nd, 1911.

Previous history.—Patient had had a cough for eight weeks. Two days before admission she had diarrhœa and vomited twice. Next day she was very peevish, and at night time she became delirious.

Condition on admission.—Pulse, 140; temperature, 104·8; respiration, 44. Patient semi-comatose and flushed, with a hot, dry skin. General bronchitis over both lungs, and patchy dulness, with high-pitched breathing and decreased air-entry at the apex of the right lower lobe. Heart rapid, but otherwise normal. Other systems normal.

Progress. August 23rd. Temperature fell abruptly, and patient looked better, though she remained apathetic. Sponging was ordered whenever the temperature was 104·5° F. or more.

August 24th. Patient looking better. Food taken well.

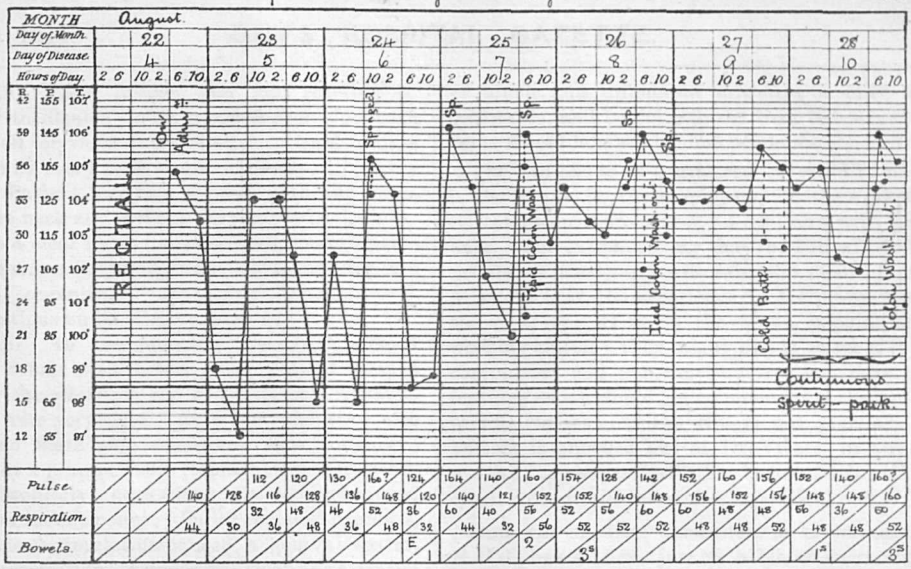
August 25th. Sponging having proved ineffective in reducing the pyrexia to a satisfactory extent, iced colon wash-outs were given. For this purpose the buttocks were raised on two pillows, and ʒxv. of iced water were slowly run in; then the child was turned on to her right side so as to fill the cæcum and ascending colon; lastly, more ice-water was run in until the whole great intestine was filled, this amount was left in for a quarter of an hour, and then syphoned off. Twenty minutes later the rectal temperature was taken. In this way not only was the temperature effectively controlled, but toxins were washed away and the child was caused to sleep quietly. Tinct. belladonnæ, ♏ iii., was ordered every four hours. At night patient became restless, so brandy was given in full doses, being preferable to chloral and other ethane hypnotics because of its food-value.

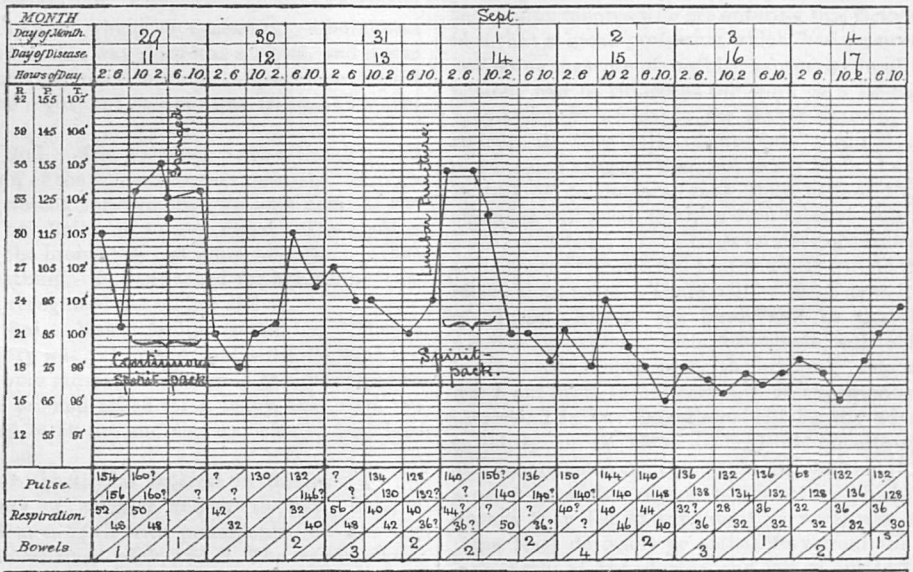
August 27th. Patient becoming very irritable, and only taking food after much persuasion. Patchy broncho-pneumonia has developed over both lungs. Signs of fluid having developed below the left scapula, the chest was needled, with a negative result. The needle was then pushed on into the lung, and 8 c.c. of blood were withdrawn, from which a pure growth of pneumococcus was subsequently obtained. The pulse was now beginning to suffer, so digalen, ♏ ii. was added to the mixture. Brandy, ♏ xl., and I.S.H., ♏ ii. were also ordered, alternately, every other hour.

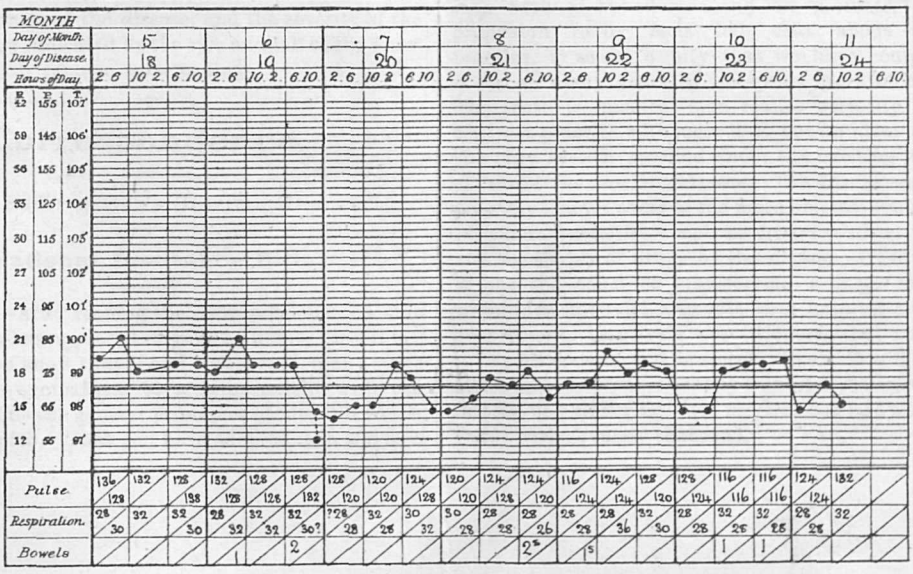
The temperature chart was very striking, the great oscillations, which had characterised it at first, gradually disappearing, so that the lower limit exhibited a steadily-rising curve. Cold-baths and wash-outs ceasing to keep the temperature down for more than twenty minutes, the child was wrapped in a towel kept constantly wet with lotio evaporans, and left otherwise uncovered on a mackintosh. This was successful in reducing the temperature to about 101–102°, and was afterwards repeated whenever the temperature rose to 104°. A diagnosis of confluent pneumococcal broncho-pneumonia was made.

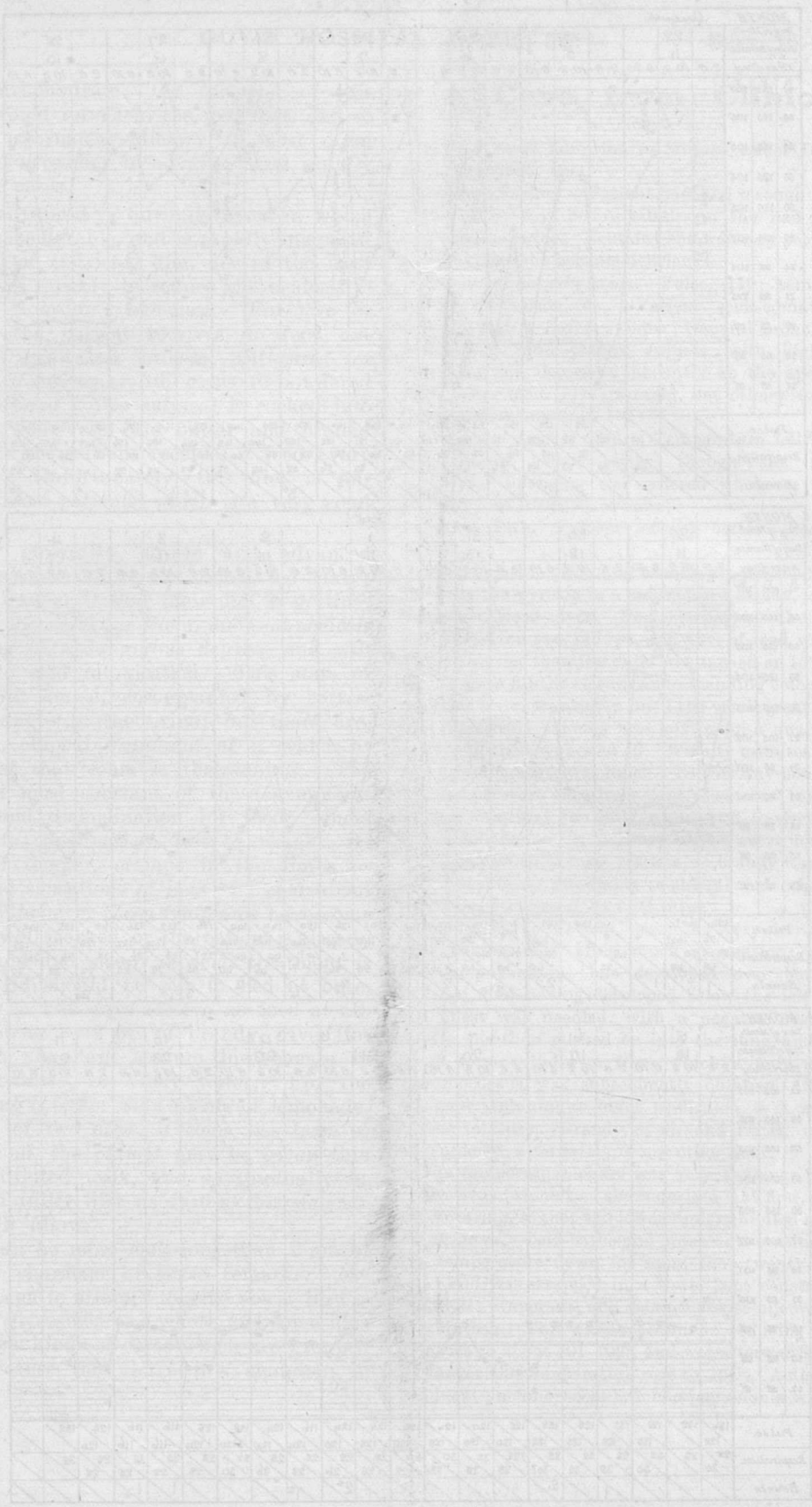
G.H.—252a

Ward Miriam. No. of Bed 27. Admitted Aug. 22. æt. 3 yrs. Name Rosina P.— No. in Vol.









August 28th. Pulse feebler, and not reacting to strychnine or to digalen; skin mottled and blue, with numerous small erythematous patches. Nasal feeding with ℥ v. of milk every four hours. Brandy, ʒ j., every four hours. Patient has lain all day with the limbs flexed, and the neck and spine hyperextended. Lumbar puncture gave a clear fluid, under normal pressure; this contained numerous polymorphonuclear leucocytes and gram-positive organisms, apparently pneumococci, though cultivations on blood-agar remained sterile.

August 29th. In the morning the chest seemed clearer, the colour was better, and patient seemed brighter. By the afternoon she was extremely irritable, and the legs were very rigid. At 8 p.m. the arms also were rigid, and there were occasional slow convulsive movements. At 9 p.m. periodic respiration was observed, patient was absolutely unconscious; she vomited several times, and had incontinence. Pallor replaced cyanosis, and the slightest stimulation caused a general spasm, with arrest of respiration. Oxygen was given and artificial respiration employed whenever necessary. Choral was also given, and in this way sleep was secured, and it was possible to continue nasal feeding. Spasms continued throughout the night, but became less frequent towards morning.

September 2nd. The extreme head-retraction and hyper-extension of the spine have disappeared. Kernig's sign has been absent throughout. Patient now lies flat on her back, her limbs no longer flexed. The chest is clearing; all the bronchitis has gone, and much of the bronchial breathing. Patient asked for her mother this morning, and recognised her on her arrival.

September 3rd. Nasal feeding given up. Thence forward recovery was very rapid, and within a week the chest-sounds were normal. On the 4th, patient helped to put her frock on, and asked for a teddy bear. On the 5th she wanted to sit up, and she was able to feed herself with a spoon.

The points of particular interest in this case are:—1. The recovery of a child known to have definite pneumococcal meningitis with pneumonia. 2. The use of the continuous spirit-pack, and 3. The way in which the general course of the disease, and the severity of the symptoms were indicated by the rise and fall of the *lower* limit of the daily temperature-readings. A. H. T.

Correspondence.

To the Editor of Guy's Hospital Gazette.

National Insurance Bill.

Dear Sir,—After reading the correspondence on this subject which has appeared in your columns, I feel it my duty to let you know that I, and, I feel sure, many other medical men, sympathise to a large extent with the attitude towards the general principles of the Bill which you have adopted. That you have adopted it in the face of much and influential criticism is only the more creditable, and I rejoice to see that the Gazette maintains its old honourable independence.

The Bill has to be considered in regard to its effect on i. the State, ii. the employers, iii. the workpeople, and iv. the medical profession. I deal now with the two last only. The extremists say that the Bill will do the workpeople no good, and will ruin the medical profession. As to the first, the experience in Germany has been to the contrary. It is, on the whole, popular among the working classes; they might like it better if it was non-compulsory and non-contributory, but it is just those features which would not commend it to the tax-burdened middle-classes. If the Bill is not popular, then the bottom is knocked out of Dr. Vicars' in any case unworthy suggestion that it has been introduced merely to catch votes in the interest of a political party.

And the medical profession is to be ruined! The *B.M.J.* has said so, just as a bit of encouragement to those unfortunates who are entering this October! This idea that a great profession which has received honour and a due measure of worldly prosperity in all ages and nations can be ruined at the word of a Bismarck or a Lloyd-George, seems to me rather amusing. But, of course, all this talk of absolute "ruin" is simply picturesque exaggeration, not to say bluff. I do not find, in talking to doctors, that they believe the Bill as amended will mean to them even relative ruin. On the contrary, I fancy that a large number of medical men in their heart of hearts feel that the Bill will do them good rather than harm. There will be losses as well as gains, of course. Among the losses will be that a certain number of patients, hitherto private, will obtain their medical attendance under the scheme. I do not think, but I am open to correction, that the number will be large, and in any case there will be the advantage of certainty in payment instead of uncertainty. Dr. Beddard opposes the Bill on the ground that it will mean a great extension of contract-practice, which he "had always been led to suppose," he says, was considered "the least desirable or satisfactory from the point of view both of the doctor and his patients." If the profession really feels like that about contract-practice, it seems a pity that we have countenanced it for so many years by accepting work of this kind. The truth is, medical men realise perfectly well that contract-practice, although it is not an ideal system, is the only system possible under the existing conditions of life of the working classes. The Insurance Bill will probably remove some of the more objectionable features of contract-practice—such as friendly society control, and the supply of drugs by the doctor. If, in addition, it has the effect of transferring a large number of patients with trivial ailments from hospital out-patient departments to private practitioners, that cannot fail to benefit doctors and hospitals alike. It will leave the latter free to treat so many hundred patients properly instead of "tinkering" (to use Dr. Beddard's expressive word) with so many thousand.

Of your correspondents, Dr. Vicars seems to oppose the Bill chiefly on the ground that the profession was not consulted in its planning; Dr. Beddard on the ground that the Bill is a bad investment for the nation's money, and he seems to imply that there is a workable alternative, but does not indicate what it is. I am not sure that there is an alternative. Oh yes, there is one—but that, I am certain, would not commend itself to either of your correspondents, perhaps not even to the GAZETTE, so I will keep it to myself.—Yours, etc.,

FORMER EDITOR.

DEAR SIR,—May I use your columns to thank Dr. Beddard for his exceedingly sensible letter in to-day's issue of the GAZETTE? We all admit that the idea of free and efficient medical attendance combined with sick-pay is beautiful and praiseworthy in the abstract, but when we see that the attainment of this ideal involves the pauperisation of the G.P. our material interests force us to damn the Bill with great heartiness.

Forgive me, Mr. Editor, if I point out to you that you have not the faintest idea of what general practice is in the districts where the Bill has met with the greatest and most united opposition. You will gain nothing from the Manchester Guardian. The mere fact that the Bill was introduced by a Radical Government is sufficient to stamp it with a hall-mark in the eyes of that journal. The fatuous advice to read the Bill, even when backed with the GAZETTE's italics, does not obscure the real issue. We have read the Bill, and knowing our own business at least as well as Mr. Lloyd George, we are determined to oppose what we consider the most impudent and flagrant attempt at exploitation that our profession has ever suffered. I wish you could come to Manchester, Mr. Editor, and have a little chat with some of the more prominent practitioners, Liberals, many of them in politics, but intensely hostile to the Bill. They cannot gloss over the painful fact that they are being deliberately sacrificed in order that the working man's vote may be secured to the Radical interest.

Interview Members of Parliament, as I have done, and you will learn two facts, two painfully obvious facts: The first is, that nine out of every ten members have not the ghost of an idea how a practice is conducted. I have a most amusingly ingenuous letter from one M.P., a layman, of course; perhaps ingenuous is hardly the right word, let me call it, rather, childish. He explains quite prettily several points in medical practice that were new to me, and gives me, gratuitously, some very valuable advice, chiefly on the duty of submission to one's superiors; I am afraid that I was rather rude to him in my reply. The second fact is admitted by the more honest, and hinted at in a laboriously circumlocutory manner by the more political, member. It is, that the whole thing is a question of votes. Votes, votes, votes, Mr. Editor. Don't be misled by the clap-trap about rays of hope in the grey twilight of the working-man's life. Look the Bill squarely in the face and ask yourself, firstly, "Is the Medical Profession to lose or gain by this Bill," and if the answer is that we lose, then your plain duty as the Editor of a Medical Gazette is to oppose the scheme. The general practitioners have looked the Bill in the face, and they see in it only disaster to themselves, therefore they will not have it at any price.—Yours faithfully,

Manchester. GENERAL PRACTICE.
September 2nd, 1911.

DEAR SIR,—We have all perused a large number of letters from medical practitioners deploring the effect of the proposed National Insurance Bill on their incomes, but I wish to emphasise another aspect of the question. The effect of this wholesale endowment of the club system will be enormously to *increase* the amouut of work required from a practitioner, whilst it *diminishes* his income.

Anyone with experience of club work knows that a large number of his club patients expect far more in the way of visits than his private patients do. They more readily apply for treatment for slight indispositions, and if they are afflicted with some long-continued and perhaps incurable disease, they will expect the doctor to call in whenever he is in the vicinity. The middle-class paying patient under these circumstances "considers the cost," and demands very much less attention. And if all the lower middle-classes are to be converted into club-patients it is plain that our work will be multiplied.

Only recently in my own practice a family was inadvertently admitted into a club, who previously were private patients. The effect was instantaneous; numbers of urgent calls were received and special journeys made (they live two miles away). At the end of three months the error was detected, they once more became private patients, instead of "clubbers," and instead of urgent calls, they brought their ailments down to the surgery.

In conclusion, I would like to emphasize the deplorable effect which the universal facilities for sick-pay will have on the people. The more sick-pay there is the more sickness there will be, and the longer it will take to get better. These are facts that any practitioner of three months' experience of general practice will, I think, endorse, and the effect must be to increase the cost of labour, and consequently the price of everything. The more the working-man sees of the Workmen's Compensation Act the more trifling the injury for which he lies up, so that the Employers' Accident Insurance Societies have decided to increase their rate of premium next year.

A similar effect will follow this "Sick-Pay Bill," except that the nation is the Insurance Society, and the individual the premium-payer.

It will be seen that my argument is that so far from the Bill preventing sickness, it will rather tend to increase it.—Yours, "LEANER."

A Formula.

DEAR SIR,—I have been asked to supply the formula for the quinine ointment which appeared in my article of your last issue. As I mentioned then, I obtained it some years ago from Sir Cooper Perry. It is made up as follows:—

℞ Quinine (alkaloid) ... ... ʒvi. ℈i.
Oleic acid ... ... ʒi.
Diachylon ointment ... ... 2 lbs.

Directions.—Warm the alkaloid with oleic acid on a water-bath until dissolved. Then mix.

I am much indebted to Dr. John Wade and to Mr. Horace Finnemore, B.Sc., for kindly help and criticism in the matter of fat analysis. Mr. Finnemore was also so good as to provide me with reagents and apparatus, allowing me to make general disorder in his private laboratory.—Yours, etc.,

H. C. MANN.

Originality in Medicine.

In a recent number of the GAZETTE the lack of original thought among medical men and students was deplored. We would also deplore the rarity of original books on medical subjects such as the one under consideration, the author's work on Constipation, and Dr. Mackenzie's "Diseases of the Heart."

DEAR SIR,—May I draw the attention of your readers to the above words which appeared in your excellent review of Dr. Hertz's original and valuable work on "The Sensibility of the Alimentary Canal," for I honestly feel that the lesson which they would teach is of considerable importance to all of us?

If there is an abundant lack of original minds in our profession to-day, is it not simply because original thought, as such, is not encouraged by the profession? Or, if our need is merely an expression of the more general fact that genius is, in reality, dying out in the nation, is not that also simply because medical men, as such, are not concerned directly with the reproduction of genius? And why? Is not genius, then, of incalculable value to our nation and our race? And if it is, is it not really time for us to stay in our common round of daily routine and to take some thought for the morrow when the whole aim and trend of life to-day is the reproduction, the encouragement, and the preservation of mediocrity?

What can be done for the common man, what will benefit *him*, what will enable him to raise himself above himself, are not these the constant subjects for thought amongst our publicists? And genius unable to grow and flourish in the stagnant atmosphere of mediocrity dies, and we neither know nor care that we have crucified the Lord!

The untold harm, the infinite wrong that this false conception of democracy has done to literature, to art, and to education in general, it is increasingly doing to science and to medicine. In the world of medicine in England to-day the general practitioner, the prescribing physician, and the operating surgeon over-ride the men of thought, the researcher, the life-long student, the philosopher, the dreamer, the man of genius. The everyday needs of the former are the desires and aims of our noble profession; mere spade-work, the cramming of a number of unimportant details, the knowledge of a million useless drugs, the mnemonics of diagnosis and treatment, and above all the reverence paid to all the stupidities of an unscientific past, these are the ideals of our medical men.

The curse of commercialism, quick returns and high profits, has fallen upon us, and our ancient aristocracy of the mind is in great danger of being destroyed for ever. Upon such evil days have we come that the only ambition of the modern student is "to get qualified" as soon as possible with the least possible expenditure of thought upon his part. And the slow growth of genius is choked and strangled by this exuberant undergrowth of weeds. How then can originality, the fruit of genius, ripen into being?—I am, Sir, yours sincerely,

UT PROSIM.

O.P.O Regulations.

DEAR SIR,—Why have we heard no more of the scheme you put forward in Passim two months ago, as an alternative to the official scheme for rearranging the duties of the O.P.O.'s? There are many of us who consider that it offers considerable advantages over the latter scheme, and but the least of these is one which should appeal to the Appointments Committee who will have five men for four House Appointments. Thus, it works for efficiency both in the duties of the O.P.O., and of the H.S. or H.P.—Yours truly,

September 8th, 1911. N. A. DYCE-SHARPE.

Medical Revolution.

SIR,—An old friend has lately shown me in the GAZETTE several kindly references to my little book. But what I have been inviting for many years is still lacking: namely, criticism. The fundamental points first calling for criticism are these:—

1. The definition of "a disease" as, a mental conception drawn from the observation of a series of cases presenting symptom-groups of determinate and similar causation. In other words, the statement that, every true disease represents correlated cause and effect. In this category are the diseases of parasitism, of poisoning, of traumatism, and of incomplete development.

2. The corollary that all conceptions, put forward as diseases, which are not derived from series of symptom-groups of determinate and similar causation are spurious diseases, misleading conceptions. In this category are

the "organic diseases" of the pathologist, and all local and special "diseases" of all the specialists, from him of the heart to him of the skin.

3. The importance of these definitions rests on the fact that in detecting an attack of any true disease we make a genuine diagnosis, because, we thereby correlate cause and effect, whereas, in resting content with the detection of an attack of any spurious disease we make an illusory diagnosis, because, we do not then even attempt to correlate cause and effect. Therefore, anyone who will, is now in a position always to differentiate the genuine from the illusory diagnosis.

I have no doubt that some of my old friends amongst the pathologists and specialists, will welcome this opportunity to give us a plain and pointed statement as to the attitude of the orthodox towards these simple but revolutionary doctrines.—Yours truly,

SYDNEY W. MACILWAINE.

Summer Diarrhoea.

DEAR SIR.—The harassing experiences in the recent epidemic of summer diarrhœa made many of us read with interest Dr. Mann's notes in your last issue. Though I have only time to jot down a few notes from my own experience, I feel I must quibble with some of the dogmatic statements and directions.

I have been struck by the variability in type and course of the illness, by the slightness of the sickness (vomiting) in most cases, by the painful colic of some contrasting with the quaint indifference of others, by the hot dry skin of some and the cold clammy skin of others, by the obstinate tendency to recurrence, and the development of complications such as hyperpyrexia, convulsions, meningitis, a paralysis of the sphincter ani causing a leaking diarrhœa, etc., etc.

The most common story, perhaps, has been a variable prodromal period of mild diarrhœa, usually put down to teething, then suddenly the onset of acute toxic signs with or without profuse liquid action; and among my cases I have considered the collapse of toxæmia to be more frequent than that of visible loss of fluid. In some cases I have seen a baby almost lifeless with only two actions in twenty-four hours. With this goes also the comparative infrequency of soreness of the buttocks. I have been surprised at the incidence among carefully tended children, and even entirely breast-fed children.

As regards treatment the value of opium is undoubtedly very great, but its effect has to be watched carefully. The kidneys work very badly in this illness. I believe the passage of urine in decent amount is a happy indication, but when you may be feeling very pleased, without many hours warning, a coma of a different type may set in, even with much smaller doses than that recommended. I believe a moderate looseness of the bowels to be an advantage until the kidneys have recovered themselves, and creosote, which, by the way, is not very pleasant, appears to have a slightly laxative action.

As regards milk feeding, even citrated or mothers' I have tried it, and it appears to me to be a poison. Whether the fatty acids are poisons under these conditions or whether the bacteria elaborate something which is peculiarly irritant, I know not, but I do not think the omission of milk is based on superstition only. I believe the gastric juice becomes hyperacid, and a meaty solution or albumen water eases pain and irritability, though I confess they make the fæcal discharges most unpleasant: after an interval they may be replaced by whey, and thence gradually by milk.

Again, as regards alcohol, with all due deference to the authorities, this is not entirely a curse, and I believe some babies owe their life to its fairly liberal use at these times.

The value of saline injection I feel is passed over too hurriedly in Dr. Mann's note; I have seen no ill effect with repeated injections, and because of this safety of repetition at a few hours interval I prefer them to the sea-water, but I may be prejudiced because I lost a case, to which I gave one injection of sea-water, during the night following the injection. The homely poultice, the horizontal or head-low position, warmth and scrupulous cleanliness are easy directions to give.—Yours sincerely,

September 12th, 1911. P. W. L. CAMPS.

Guy's Hospital Pharmacopœia.

In view of the length of time which has elapsed since the publication of the last edition of the Hospital Pharmacopœia in 1899, and the prospect with the next two years of a new issue of the British Pharmacopœia, the Medical Committee has decided to begin the work of revision, and has already sanctioned the modifications and additions to the present formulæ detailed below.

MODIFICATIONS OF EXISTING FORMULÆ.

Injectio Strychninæ Hypodermica, Hypodermic Injection of Strychnine, is the Liquor Strychninæ Hydrochloridi, B.P., with an equal quantity of distilled water. Dose: 5 to 10 minims.

The present Hypodermic Injection of Strychnine is of twice this strength, and a weaker Injection is preferable for use with children.

Linimentum Calaminæ, Calamine Liniment.

Take of

Powdered Calamine	20 grains.
Zinc Oxide	15 grains.
Soft Soap	15 grains.
Olive or Nut Oil	4 fluid drs.
Water to	1 fluid oz.

Mix.

The present formula—Lime Water with Olive Oil—is said to be "unworkable, a solid mass being formed in about twelve hours."

Mistura Acidi Composita, Compound Acid Mixture.

Take of

Diluted Nitrohydrochloric Acid ...	10 minims.
Solution of Strychnine Hydrochloride	3 minims.
Compound Infusion of Gentian to ...	1 oz.

Mix. Dose: 1 fluid ounce.

The object of the proposed alteration is to avoid preparations not found in the British Pharmacopœia, and to economise in the matter of Spirit. The Committee learnt that the Alkaloid Strychnine is cheaper than the corresponding quantity of the Liquid Extract of Nux Vomica. The other Alkaloid besides Strychnine to be found in the Liquid Extract can, they think, have little or no therapeutic importance. The Compound Infusion of Gentian used in this mixture differs from Infus. Gentianæ Comp., B.P., in being prepared from *dried* instead of *fresh* Lemon Peel.

Mistura Arseni et Ferri, Fowler's and Iron Mixture.

Take of

Iron and Ammonium Citrate	10 grains.
Arsenical Solution	2 minims.
Peppermint Water to	1 fluid oz.

Mix. Dose: 1 fluid ounce.

The present formula with 5 minims of Fowler's Solution and 6 grains of Iron and Ammonium Citrate contains too much Arsenic and too little Iron.

Mistura Bismuthi Astringens, Astringent Bismuth Mixture (Children's Formula).

Take of

Bismuth Oxycarbonate	2 grains.
Aromatic Powder of Chalk with Opium	1 grain.
Compound Catechu Powder	3 grains.
Water to	1 fluid dr.

Mix. Dose: 1 fluid drachm.

It is said that in the present Mixture the Tannic Acid contained in the Glycerin of Tannic Acid acts on the Carbonates of Bismuth and Calcium and liberates Carbon Dioxide.

Mistura Olei Morrhuæ et Ferri, Cod Liver Oil and Iron Mixture.

Take of

Cod Liver Oil	4 fluid drs.
Iron and Ammonium Citrate	5 grains.
Potassium Carbonate	3 grains.
Gluside	¼ grain.
Oil of Caraway	¼ minim.
Gum Acacia in Powder	1 drachm.
Water to	1 fluid oz.

Mix. Dose: 1 fluid ounce.

The present Mixture does not contain any suspending agent.

Mistura Salol, Salol Mixture.

Take of

Salol	8 grains.
Mucilage of Tragacanth	1 drachm.
Peppermint Water to	1 oz.

Mix. Dose: 1 fluid ounce.

In the present formula Mucilage Mixture only is employed, and it is said that the Salol is liable to form a compact mass of solid at the bottom of the bottle, which is very difficult to shake up, and that the Mixture quickly becomes sour. The quantity of Salol remains unaltered.

Tabellæ Glusidi, Tablets of Gluside, contain ½ grain of Gluside and ½ grain of Sodium Bicarbonate in each. Sodium Bicarbonate is added to promote solubility, the amount of Gluside remaining unchanged.

Unguentum Ichthamolis Compositum, Compound Ichthyol Ointment.

Take of

Ammonium Ichthosulphonate ...	17 grains.
Lime Water	1½ fluid drs.
Annydrous Wool Fat	1½ drachms.
Zinc Ointment	1½ drachms.
Soft Paraffin to	1 oz.

The present formula contains too much Lime Water (9 in 30), the Lime Water separating in the course of a short time with the Ichthyol in solution.

Unguentum Styracis, Storax Ointment.

Take of

Prepared Storax	2 drachms.
Lard	1 oz.

The Methylated Spirit in the existing ointment is omitted, as it is stated to be unmanageable. No spirit is required to render Storax miscible with Lard.

NEW FORMULÆ.

Collutorium Acidi Carbolici.

Carbolic Acid Mouth Wash is a two per cent. solution of Phenol in Water.

To be used with an equal quantity of Hot Water.

Collutorium Chinosolis.

Chinosol Mouth Wash is a two per cent. solution of Chinosol in Water.

To be used with an equal quantity of Hot Water.

Collutorium Formaldehydi.

Formaldehyde Mouth Wash is a two per cent. solution of Liquor Formaldehydi in Water.

To be used with an equal quantity of Hot Water.

Cresol Solubilis, Soluble Cresol.

Take of

Cresol	40 parts.
Soft Soap	60 parts.

Heat together at a low temperature until a clear solution is obtained.

Guttæ Acidi Borici. Boric Acid Drops (Ear)

Take of

Boric Acid	1 drachm.
Rectified Spirit	2 fluid drs.
Water to	1 fluid oz.

Mix.

Guttæ Alkalinæ, Alkaline Drops (Ear).

Take of

Sodium Bicarbonate	30 grains.
Glycerin	2 fluid drs.
Water to	1 fluid oz.

Mix.

Guttæ Hydrogenii Peroxidi, Hydrogen Peroxide Drops.

Is the Liquor Hydrogenii Peroxidi of the British Pharmacopœia.

Guttæ Spiritus Rectificati, Spirit Drops (Ear).

Take of

Rectified Spirit	4 fluid drs.
Water to	1 fluid oz.

Mix.

Injectio Caffeinæ Hypodermica, Hypodermic Injection of Caffeine.

Take of

Caffeine	4 grains.
Sodium Salicylate	4 grains.
Distilled Water to	12 minims.

Dissolve.

Linimentum Calaminæ et Boracis, Calamine and Borax Liniment.

Take of

Borax	10 grains.
Calamine Liniment to	1 fluid oz.

Mix.

Lotio Calaminæ et Boracis.

Take of

Borax	10 grains.
Calamine Lotion to	1 fluid oz.

Mix.

Mistura Bismuthi et Sodæ, Bismuth and Soda Mixture.
Take of
Sodium Bicarbonate ... ... 10 grains.
Bismuth Oxycarbonate ... ... 10 grains.
Compound Powder of Tragacanth ... 10 grains.
Water to ... ... 1 fluid oz.
Mix. Dose: 1 fluid ounce.

Mistura Ferri et Ammonii Citratis, Iron and Ammonium Citrate Mixture.
Take of
Iron and Ammonium Citrate ... ... 10 grains.
Chloroform Water to ... ... 1 fluid oz.
Mix. Dose: 1 fluid ounce.

Pastillus Boracis et Cocainæ, Borax and Cocaine Pastilles.
Take of
Borax ... ... 1 grain.
Cocaine Hydrochloride ... ... $\frac{1}{8}$ grain.
Glyco-gelatin ... ... 30 grains.
Mix.

Pastillus Mentholis, Menthol Pastille, contains $\frac{1}{8}$ grain of Menthol in each.

Pastillus Mentholis et Cocinæ, Menthol and Cocaine Pastille, contains $\frac{1}{8}$ grain each of Menthol and Cocaine Hydrochloride.

Pastillus Orthoformi, Orthoform Pastille, contains 2 grains of Orthoform in each.

Pastillus Potassii Chloratis et Boracis, Potassium Chlorate and Borax Pastille, contains 3 grains of Potassium Chlorate and 1 grain of Borax in each.

Pastillus Potassii Chloratis et Cocainæ, Potassium Chlorate and Cocaine Pastille, contains 3 grains of Potassium Chlorate and $\frac{1}{8}$ grain of Cocaine Hydrochloride in each.

Solvellæ Formaldehydi, Formaldehyde Dental Tablets.
Take of
Formaldehyde ... ... $\frac{1}{18}$ grain.
Boric Acid in powder ... ... 1 grain.
Oil of Peppermint ... ... $\frac{1}{100}$ minim.
Oil of Wintergreen ... ... $\frac{1}{100}$ minim.
Milk Sugar ... ... 7 grains.
Mix, granulate, and compress into tablets.

Tabellæ Acidi Aceto Salicylici, Acetic Salicylic Acid Tablets, contain 5 and 10 grains respectively.

Tabellæ Formaldehydi, Formaldehyde Throat Tablets.
Take of
Formaldehyde ... ... $\frac{1}{6}$ grain.
Gluside ... ... $\frac{1}{160}$ grain.
Citric Acid ... ... $\frac{3}{10}$ grain.
Gum Acacia in powder... ... ... $1\frac{1}{2}$ grains.
Milk Sugar ... ... 5 grains.
Oil of Lemon ... ... $\frac{1}{10}$ minim.
Refined Sugar in powder to ... ... 15 grains.
Mix, granulate, and compress into one tablet.

Tabellæ Formaldehydi et Mentholis, Menthol and Formaldehyde Tablets.
Take of
Menthol ... ... $\frac{1}{30}$ grain.
Formaldehyde Tablets ... ... 15 grains.
Mix, granulate, and compress into one tablet.

Tabellæ Guaiaci et Sulphuris. Guaiacum and Sulphur Tablets, contain 5 grains each of Guaiacum Resin and Precipitated Sulphur.

Tabellæ Guaiacolis Carbonatis, Guaiacol Carbonate Tablets, contain 5 grains.

Tabellæ Hydrargyri cum Creta, Mercury with Chalk Tablets, synonym Grey Powder Tablets, contain respectively $\frac{1}{2}$, 1, 2, 3, 5 grains.

Tabellæ Hydrargyri cum Creta et Soda, Grey Powder and Soda Tablets, contain respectively $\frac{1}{2}$, 1, 2, 3, 4, 5 grains.

Tabellæ Hydrargyri et Ipecacuanhæ, Mercury and Ipecacuanha Tablets.
Take of
Mercury with Chalk ... ... 1 grain.
Compound Powder of Ipecacuanha ... 1 grain.
Mix, granulate, and compress into one tablet.

Tabellæ Hydrargyri Subchloridi, Calomel Tablets, contain respectively $\frac{1}{8}$th, $\frac{1}{6}$th, $\frac{1}{4}$th, $\frac{1}{2}$, 1, 2, 3, 5 grains.

Tabellæ Ipecacuanhæ Compositæ, Compound Ipecacuanha Tablets, contain respectively 4, 5 and 6 grains of Compound Powder of Ipecacuanha.

Tabellæ Phenacetini, Phenacetin Tablets, contain respectively 5 and 10 grains.

Tabellæ Rhei et Sodæ, Rhubarb and Soda Tablets, contain respectively 3, 4, 5, and 6 grains of Rhubarb and Soda Powder.

Tabellæ Salolis, Salol Tablets, contain 5 grains.

Tabellæ Thyroidei, Thyroid Tablets, contain respectively the equivalent of $\frac{1}{2}$, 1 and 2 grains of the dried gland.

Tabellæ Zingiberis Compositæ, Compound Ginger Tablets, B. P. Codex, contain Oleoresin of Ginger, Sodium Bicarbonate, Ammonium Carbonate, Gluside, Oil of Peppermint, and Theobroma Emulsion.
Dose: 1 Tablet.

Marriages.

BRUCE—OWEN.—On August 31st, at St. Michael's, Playden, by the Rev. J. Casper Lintott, Harold Wilson Bruce, M.D., to Ethel Madeline, second daughter of the late Frank Owen, of Rye.

CHAPPLE—ARBUTHNOT LANE.—On September 12th, at St. George's, Hanover Square, by the Rev. F. Webster, Rector of All Souls, Langham Place, assisted by the Rev. F. Thicknesse, Harold, son of Mr. Frederick Chapple, Headmaster of Prince Alfred's College, Adelaide, Australia, to Irene Briscoe, second daughter of Mr. and Mrs. W. Arbuthnot Lane, of 21, Cavendish Square, W.

GLANVILLE—HOME.—On August 23rd, at the Parish Church, Emsworth, Hants, by the Rev. Guildford Sprigg, M.A., Rector, Llewellyn Stanley Howard Glanville, M.D., younger son of the late Rev. J. F. M. Glanville and Mrs. Glanville, of Redland, Bristol, to Dorothy Helena, daughter of the late Charles G. Home and Mrs. Home, of Eastmead, Emsworth.

M'BRIDE—KERNAHAN.—On September 2nd, at Newington Presbyterian Church, Belfast, by the Rev. T. M. Johnston, B.A., John M'Bride, L.D.S., R.C.S. (Eng.), 26, Dukes Avenue, Muswell Hill, London, N., elder son of John M'Bride, The Croft, Holywood, County Down, to Hannah Elizabeth, youngest daughter of the late John Kernahan, Belfast.

SMITH—EXTON.—On August 22nd, at St. John's Church, Boscombe, Thomas Morland Smith, M.D., eldest son of Mr. Sydney Smith, of Werndee Hall, South Norwood, to Evelyn, eldest daughter of Mr. John Thomas Exton, of Clare Lodge, Knole Road, Bournemouth.

Ed.—E. G. S.

F. W. Pavy

Born 1829 — Died 1911.

GUY'S HOSPITAL GAZETTE.

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Obituary.

Dr. Frederick William Pavy.

Born May 29, 1829.—Died Sept. 19, 1911.

Another branch of the old young tree has tumbled off. What has it not seen in its time? What has it done to maintain the parent stem, and to keep it vigorous and strong? Memories of Pavy with some of our Staff must go back well nigh half a century, to the early years of his lectureship on physiology, a young-looking man of some 35 years, well formed and well found. In his later years his head splendidly caught in Strang's drawing. Not exactly a good lecturer, for he was possessed of a certain degree of stilt of language and delivery not altogether pleasant, nor did any unusual profundity of thought well up from out the subtle problems of physiology that it was his business to discuss: yet, withal, Pavy was well adapted to introduce the study of physiology to the neophyte, for his lectures were made interesting by frequent experiments, which were always carefully prepared beforehand, and seldom failed in their purpose. The functions of the liver and the constitution of the blood were always his great subjects. He had studied in France under Claude Bernard, and had found reason to differ from that distinguished physiologist as regards his hepatic theory of glycogenesis, and to work at and elucidate this intricate subject had already become his life's purpose. Since those days, although he has written on cognate subjects, such as diet and digestion, and although until his retirement he was ever a faithful servant of the hospital, regular in his visits and a sound physician, he has more and more pitted himself against the inscrutability of glycogenesis, and has devoted his life to the investigation of the disposal of the carbohydrates in the animal economy, and their misapplication in the production of glycosuria. And what a devotion it was! To take note of it was an inspiration; perchance, to some it might even have seemed the chill breath of despair!

Apart from his practice, which must have been a large, but probably easily managed one, and his holidays, he spent much—it may even be supposed most—of his time in his laboratory working at his favourite subject, and even to almost the other day Pavy's familiar brougham might any day be seen along the Thames Embankment or near by the Examination Hall waiting for its master, and one knew that he was there at work.

This is surely the commanding feature of Pavy's career: it was spent in good solid work; in the endeavour to grapple with the methods of production and the causes of glycosuria, and if in the end he has put no coping stone to the edifice, has added no consummate discovery to the sum of the world's knowledge, and the physiology of the carbohydrates still remain a fascinating study, as it does, for those who follow him, what matters it? Has he rendered less service to mankind? Emphatically no! The work he has done and the discussion to which it has given rise have raised a platform of enduring material from which other workers have already started, from which many more in the future must start to master the at present inaccessible.

It is the fate of much original research that at its commencement the line chosen seems more or less of a speculation as regards a fruitful yield. Some, perhaps, with unusual penetration—some, perhaps, as a mere matter of chance—land themselves in a discovery. Happy are these men and the age that begat them.

And when one comes to make the study of the functions of animal bodies the special object of our

quest, that is, to leave the firmer roadway of obvious morbid change and betake oneself to aviation, one enters upon conditions, winds and currents, clouds and mists, heat and cold, holes in the air, and what not, all inconstant, unexpected, hardly to be foreseen, which, while they are exhilarating and absorbing, are extraordinarily difficult to steer through, and from the exclusive judgment by which Fame is granted, are decidedly dangerous to immortality.

No one who knew anything of Pavy's work can doubt that he was a most careful experimenter, and no framer of hasty generalisations. No one was better acquainted than he with the many pitfalls that lay around him, for he himself has written, "no subject of physiological research is, perhaps, beset with sources of fallacy in so many directions, or entangled in greater intricacy. The closest watchfulness over every experimental detail is needed to escape from error, and the wider the field of personal observation the more advantageous the position for discerning the truth." But whatever the criticisms of his inferences and deductions may be, his results themselves need to be very carefully considered. No one ever found him without plenty of forcible reply when attacked, and whatever he has to say is always based upon a solid bottom of his own experimental experience and observation.

It is necessary to say this much, for although not without honour by any means in the world of medicine, it seems strange that a man with a world-wide reputation should have received no recognition from the State; and it would even almost seem that of late years Pavy's life-long investigations have paled somewhat in the estimation of a younger generation. To the writer's vision it matters not whether he discovered anything or nothing, he presented to the world of science one of the most conspicuous examples of our time of continuous patient search into the secrets of Nature, and as such he must ever be remembered and venerated by the school that gave him birth.

Pavy always seemed to be a very self-contained man. It may even be surmised that very few of his contemporaries or even his colleagues really knew him well, and his manner to many was somewhat cold and uninviting. So much so, indeed, was this the case as to suggest that, at any rate of late years, his physiological labours were his one and absorbing love. But his home life had been sadly shattered. His younger daughter died after a few days' illness of diphtheria in 1878. His wife died in 1884; and later on his elder daughter, who had married the son of Sir William Savory, died; as also did his son-in-law; and a grandson alone is left.

The old branch has fallen out of a full time: the record of its long life needs no lip service, it will well bear scrutiny, it is both good and great.

There are diversities of gifts—but a kindred spirit! Each in his own order it may well be thought—the future, if it does not forget, will determine—that Pavy has proved himself not unworthy to rank beside Hughes, Hodgkin, Bright, Addison, Gull, and Wilks, and he has left behind him yet another memorable influence to add to those of the great ones gone by that people, if invisibly, yet so richly, the precincts of Guy's.

Dr. Pavy's reputation as an experimental physiologist and as an authority on diabetes was made comparatively early. His communications to the Royal Society on the subject of sugar in its relation to the animal economy date from 1855, when he was only 26 years of age. His book, entitled "Researches on the Nature and Treatment of Diabetes," was published in 1862, and from that time onwards he devoted himself to the study of this disease. As long as he was connected with Guy's Hospital as a member of the active Staff, he had the use of a small private laboratory, but he subsequently conducted his researches in the laboratories of the Conjoint Board on the Embankment, and when they were no longer available he was accommodated in the Physiological Laboratory of the University of London, where he regularly, almost to the end, spent some part of the afternoon. The results of his observations and experiments have from time to time during 55 years been communicated to the Proceedings of the Royal Society, to the medical journals, or published in the form of Lectures and Treatises. There are some 20 of his communications in the Proceedings of the Royal Society, and so recently as November, 1908, he delivered at the Royal College of Physicians a course of three lectures, in which he put forward his latest views on the way in which the different forms of glycosuria were to be explained.

Though the study of the relations of sugar to the blood and urine was undoubtedly his life's occupation, he did valuable work on the subject of functional albuminuria; and he published a treatise on Food and Dietetics, which was for years the standard work in English on that subject.

As a physician there is no doubt that Dr. Pavy's interest was centred on the subject of diabetes; but he never allowed his wards to be overloaded with cases of this disease to the exclusion of other cases. As a clinical teacher he dealt with all subjects clearly and adequately, if not profoundly. As a lecturer he was precise in his diction and clear and deliberate in his delivery, and he placed the subject matter in a perfectly simple and intelligible way before the student. As a lecturer on physiology, especially on any subject which could be illustrated by experiment, he was especially interesting; and his experiments (sometimes involving a legitimate vivi-

section) were conducted with eminent skill and success, so that the facts to be illustrated were indelibly impressed upon the minds of his audience. The neatness with which these experiments were carried out was always a matter for admiration, and it was often remarked by the men of that time that Dr. Pavy could not have failed to make a perfect operation had his career been that of a surgeon. The writer well remembers such a lecture, more than forty years ago, which formed the subject of a published article, and in which Dr. Pavy contested the familiar views of his old master, Claude Bernard, with regard to the glycosuric theory and the formation of sugar from glycogen in the liver.

In 1873 Dr. Pavy was joined in the lectureship by Dr. Pye-Smith, and five years later he gave up the lectures on physiology, and became joint-lecturer on medicine.

Dr. Pavy's name was associated with many practical improvements in clinical and practical medicine, among which may be mentioned his modification of Fehling's solution, his ammoniated cupric solution for the more accurate estimation of the point at which complete reduction of the cupric oxide occurs, and his use of sugar tests and albumen tests in the solid form (pellets).

Dr. Pavy was in all he did methodical, punctual, and precise; never bustling or in a hurry. To the end he was wrapped up in his work; he pursued his investigations with dogged perseverance in spite of the fact that some of his views were by no means readily accepted by other observers and experimenters.

He had a large and lucrative practice, chiefly in the treatment of diabetes, albuminuria, and digestive diseases, and he saw patients in his own house within a few days of his death.

At home he had few diversions apart from his professional practice and researches, but he was fond of travelling, and years ago he frequently availed himself of his annual holiday to visit foreign health resorts, with a view to advising his patients in their selection of a spa when necessary for treatment. Only recently at the age of 80 he paid a visit to South Africa. He was a familiar figure at the meetings of the Royal College of Physicians where he had delivered the Goulstonian and Croonian lectures and the Harveian Oration, held the offices of censor and senior censor in due course, and received in 1901 the Baly medal for distinction in physiology.

Though not, at any rate in his later years, addicted to athletic sports in his own person, beyond a regular "constitutional," he was certainly an advocate of their usefulness in general, as witness his munificent gift of a complete gymnasium to the students of Guy's Hospital, and his presence at numerous athletic displays and assaults-at-arms by Guy's students and others in the same place.

THE SCIENTIFIC WORK OF DR. PAVY.

It is not easy within the short limits of an obituary notice to treat adequately the scientific work of an observer whose activities extended over a period of sixty years. Yet the task is rendered easier by the fact that Dr. Pavy's attention was devoted from the outset to the one chapter of physiology with which his name is identified and which really furnished the grand passion of his life. His earliest published paper was entitled "Saccharine Matter: its Physiological Relations in the Animal Economy" (communicated to Guy's Hospital Reports in 1853), and almost every one of his subsequent papers might be grouped under the same heading. His interest in this subject must have been aroused by his work in the Laboratory of Claude Bernard during his sojourn in Paris. In 1848 Bernard had published his well-known paper dealing with the formation of sugar in the liver. According to Bernard, the formation of sugar by the liver was shown by the fact (1) that the liver contains more sugar than any other organ of the body; (2) that the hepatic veins contain sugar, while the portal blood obtained at the same time may be free from this substance. Later, on looking for the mother substance of the sugar, Bernard discovered the animal starch or glycogen. Pavy's researches very soon disclosed fallacies in Bernard's experiments, and led him to take up a position in strong opposition to that of Bernard, a position which he maintained to the end of his days. Pavy showed conclusively that Bernard's results were largely due to post-mortem changes or to injuries undergone by the liver in the course of the experiment. If the hepatic blood be taken without causing any stasis in the liver vessels, it is found to contain little or no more sugar than portal blood. Moreover, if the liver be rapidly taken out of the body and thrown at once into boiling water to destroy the ferment present in the cells, it is not found to contain any more sugar than any other organ of the body. According to Pavy, therefore, the function of the liver was not to supply sugar to the rest of the organism, but to keep the sugar which entered the blood from the intestine from passing into the general circulation. Glycogen he regarded as a carbohydrate material on its way to further assimilation and probably destined to form fat. The bearing of these results on the disease of diabetes was at once apparent. According to Pavy, diabetes was due to a failure of the sugar-stopping function of the liver. If the glycogen were not a source of sugar to the blood it was evidently necessary to trace its further transformations, and hence Pavy was one of the earliest physiologists to make a serious attempt to determine the steps in the assimilation of carbohydrates and their building up into the different constituents of the protoplasmic molecule. In this connection an important discovery was the

detection of a carbohydrate moiety in the greater number of the so-called proteins. Caseinogen was the only protein found by Pavy to be free from this carbohydrate radicle. The formation of fat from carbohydrates takes place, according to Pavy, not only in the liver, but in the other tissues of the body, and he showed that after a diet of oats fat globules might be detected in the epithelium of the intestine in much larger numbers than could be accounted for by the small proportion of fat in the oatmeal. These fat globules he regarded as synthesised by the epithelial cells from the starch of the food.

So far as I know, the accuracy of Dr. Pavy's results is accepted at the present time by all physiologists, though we have not been able to follow him in his entire denial of the sugar-forming function of the liver. It must be acknowledged that since Pavy's annihilating criticism, the evidence in favour of the glycogenic (*i.e.*, sugar-forming) function of the liver is more or less indirect, and we have recognised that the difference in the sugar content of portal and hepatic blood is too small and too subject to experimental error to warrant any wide deductions being made from them. On the other hand, so great is the flow of blood from this organ that a relatively large quantity of sugar might pass into the blood of the hepatic vein without appreciably raising the percentage amount of sugar in this fluid as compared with portal blood. The differences would thus remain within the errors of experimental analysis.

Although holding rigidly to his main thesis, Dr. Pavy was ever alive to the work of later investigators. Thus, among the papers issued by him in the last ten or fifteen years we find important contributions to the knowledge of phloridzin-glycosuria, to the question of glycolysis in the blood and tissues, the nature of ferment action, the role of leucocytes in assimilation, etc. It was interesting to note how, during his later years, as the cares of practice became less absorbing, Dr. Pavy returned more and more to his old love, the physiology of carbohydrates. He was a frequent attendant at the meetings of the Physiological Society, and there one would find him constantly engaged in conversation with younger physiologists, telling them of his latest experiments and eager for discussion and criticism by men who might have been his grandsons. His single-mindedness and keenness on his subject, combined with true scientific modesty, has endeared him to all the younger workers, and the absence of his familiar figure from the meetings of the Royal and Physiological Societies will be sadly felt. He much appreciated the presentation of a silver cup made to him on his eightieth birthday by the Physiological Society "as a token of affection and esteem."

E. H. S.

PAPERS BY F. W. PAVY.

Saccharine Matter: its physiological relations in the animal economy.—G.H.R., 1853.

An Experimental Inquiry into the nature of the metamorphosis of Saccharine Matter, as a normal process of the animal economy.—R.S.P., 1854.

Researches on the nature of the normal Destruction of sugar in the animal system.—G.H.R., 1855.

On the Gastric Juice as a Solvent of the Tissues of living animals.—G.H.R., 1856.

Remarks on the physiological effects of Strychnia and the Woorali Poison.—G.H.R., 1856.

An Experimental Inquiry into the alleged Sugar-forming Function of the Liver.—R.S.P., 1857—59: G.H.R., 1858.

The Influence of Diet on the Liver.—G.H.R., 1858.

On Lesions of the Nervous System producing Diabetes.—R.S.P., 1859.

Researches on Sugar Formation in the Liver.—Phil. Trans., 1860.

Contributions to the Physiology of the Liver. Influence of Alkalis.—R.S.P., 1860—62.

Contributions to the Physiology of the Liver. The influence of an acid in producing Saccharine Urine. —R.S.P., 1860.

Researches on the influence of various articles of Food on the Elimination of Sugar in a case of Diabetes, with reports of other cases treated with success by restrictions to a purely animal diet.—G.H.R., 1862.

On the immunity enjoyed by the Stomach from being digested by its own secretion during life.—Phil. Trans., 1863.

On almond food as a substitute for bread in Diabetes.—G.H.R., 1862.

On the production of Glycosuria by the effect of Oxygenated Blood upon the Liver.—R.S.P., 1875.

The Physiology of Sugar in relation to the Blood. —R.S.P., 1878.

Volumetric Estimation of Sugar by an ammoniated cupric test giving reduction without precipitation. R.S.P., 1879.

Method of determining Glucose.—*Chemical News*, 1879.

On the presence of Sugar in healthy human Urine. —Med. Chir. Soc. Proc., 1880.

On the Estimation of Uric Acid by its reducing action upon the ammoniated cupric test.—Med. Chir. Soc. Trans., 1880.

A new line of research bearing on the Physiology of Sugar in the animal system.—R.S.P., 1881.

Introductory Note on Communications to be presented on the physiology of the carbohydrates in the animal system.—R.S.P., 1883.

On a product derived from Glucose by bringing it in contact with gastric or intestinal mucous membrane.—J. of Phys., 1883.

On the Physiology of the Carbohydrates in the animal system.—R.S.P., 1883.

The Glucoside Constitution of Proteid Matter.—R.S.P., 1893.

The Physiology of Carbohydrates.—1894.

Sugar and Alcohol-coagulated Liver.—J. of Phys., 1896.

Quantitative determination of Sugar in Blood.—J. of Phys., 1896.

On Phloridzin Diabetes.—J. of Phys., 1896.

Hepatic Glycogenesis.—J. of Phys., 1897.

Injection of Carbohydrates.—J. of Phys., 1899.

Nature of Body Sugar.—J. of Phys., 1900.

(With R. Siau.) On the nature of the Sugar present in the normal Blood, Urine, and Muscle.—J. of Phys., 1901.

Experimental Glycosuria.—B.M.J., 1901.

On the Acetone Series of Products in connection with Diabetic Coma.—*Lancet,* 1902.

(With R. Siau.) Glycolysis in Drawn Blood.—J. of Phys., 1902.

On the Question of the Formation of Sugar in boiled Liver.—J. of Phys., 1902.

(With R. Siau.) The Influence of Ablation of the Liver on the Sugar Contents of the Blood.—J. of Phys., 1903.

(With T. G. Brodie and R. Siau.) On the Mechanism of Phloridzin Glycosuria.—J. of Phys., 1903.

Pathogeny of Diabetes.—*Lancet,* 1906.

Carbohydrate Metabolism.—1906.

Carbohydrate Metabolism, *Lancet,* 1905.

Anomalous Reaction in Testing Urine . . . with Fehling's Solution.—*Lancet,* 1907.

Uber den Kohlehydratestoffwechsel.—Phys. Vorträge, 1907.

(With H. W. Bywaters.) Glycogen Formation of Yeast.—J. of Phys., 1907.

Louisa Ashton Paul.

We much regret to record the death of Probationer Louisa Ashton Paul, who died after a short illness in Mary ward on September 19th, at the early age of 27.

Hardly had we heard she was ill than news came that the fight would be a hard one; then the fatal news that all the medical skill and plucky determination of the patient were of no avail. Pneumonia was the primary illness, but pericarditis set in as a complication and determined the fatal result.

Nurse Paul came to Guy's just two years ago, after three years' training at the Royal Hospital for Sick Children, Glasgow, where, as here, her bright reassuring ways won her many friends among her patients as well as the hospital staff. She was one of our most promising nurses. Nothing was too much trouble for her, no detail too small for her to notice, and the comfort of her patients was her first consideration. Through it all she never lost, either off or on duty, her bright sunny ways. Her life here has been one from which many of us could learn several useful lessons.

She was passionately attached to children, and had intended returning to children's work after completing her training here.

She was taken home to Scotland where many beautiful wreaths followed, as loving tribute to a lost comrade. One of the simplest and most beautiful was a large cross of white heather from her fellow nurses, in token of her nationality, which so pleased her people that they lined her grave with the flower she loved so much. Other beautiful flowers were sent by the Matron, the Assistant Matron, Sisters, House Officers, and the Clinicals for whom she was working when taken ill.

Emily Pritchard.

We also regret to record the death of Miss Emily Pritchard, who died at Eastbourne on September 12th, 1911, after a long and painful illness lasting over two years.

Miss Pritchard entered the Hospital in 1889, and on completion of her training held the post of Staff Nurse for three years, after which she joined the staff of the Private Nurses' Institution, remaining there until 1906, when she entered into partnership with Miss H. Collins in a Nursing Home at Eastbourne.

Papers by Guy's Men.

E. P. Minett, M.D., D.P.H., D.T.M. & H., Acting Government Bacteriologist, and W. J. Duncan, M.B., B.Ch. The Incidence of B. Pyocyaneus in British Guiana.—*Journal of Tropical Medicine and Hygiene,* April 15th.

E. P. Minett, M.D., D.P.H., D.T.M. & H., Royal Sanitary Institute Congress, Belfast: Water Analysis in Tropical Countries.

E. P. Minett, M.D., D.P.H.: Two Fatal Cases of Anthrax.—*British Guiana Medical Annual,* 1910.

R. P. Rowlands, M.S., F.R.C.S., Assistant Surgeon to Guy's Hospital, and Surgeon-in-Charge, Orthopædic Department, Guy's Hospital: Some Points in the Treatment of Severe Talipes.—*British Medical Journal,* 23rd September, 1911.

George F. Stebbing, M.B., B.S. Lond., and another, Assistant Medical Officers to Lambeth Infirmary: A Case of Myeloid Leukæmia with Chylous Ascites.—*Lancet,* 23rd September, 1911.

T. G. Stevens, M.D., F.R.C.S., M.R.C.P., Surgeon, Hospital for Women, Soho Square, Physician to Out-Patients, Queen Charlotte's Hospital, and Obstetric Tutor, St. Mary's Hospital: A lecture on Eclampsia, delivered at the Polyclinic.—*Clinical Journal,* 27th September, 1911.

Introductory.

BY STEPHEN PAGET.

BACON calls it Heaven on earth, for a man's mind to move in Charity, rest in Providence, and turn upon the poles of Truth. And it is certain that our profession gives us two of these advantages, and leaves us free to enjoy the third. But, on the other side of the account, we have our grievances. Few, very few, of us win the high prizes of this world: many of us are beaten, and that not all through our fault: many of us break down in health, or die before our natural time, and leave not enough for the children. And, what is hard to bear, we are exposed to the winds and the tides of gossip and of prejudice, and to the tongues and pens of cocksure critics, such as Mr. Bernard Shaw, who appeals to the classes, and Mr. Ben Tillett, who appeals to the masses, and Mr. and Mrs. So-and-so, who appeal to anybody who will listen to them. Moreover, we have to work, many of us, under half-educated Local Authorities, who cannot clearly see the importance of our work, or are dazzled by the sight of their own importance. we learn "the proud man's contumely, the insolence of office, and the spurns that patient merit of the unworthy takes." And, so often, our mistakes and our lapses are magnified, and our many excellencies are dismissed as matters of course.

But, Heaven be praised, there is contentment to be found along the dusty high-road of the doctor's life. A wise man, whose wife, by her ill-temper and her vagaries, rendered his life a series of disconnected shocks, consoled himself thus, "At any rate, she is never dull." So it is with our work. There is always something to be made out, learned, experienced, recorded. It may be in physiology, pathology, medicine, surgery: it may be even in that dim region where the psychologists feel at home; or it may be something in pure humanity, some revelation of the good or of the evil in man or woman.

Indeed, of all that we learn in practice, I reckon this to be one of the most important lessons, that we learn men and women. Of course, we do not get far in this mystery, nor does any profession. We die of old age, long before we have learned men and women. Still, we do have a try, we do begin. It is a fine subject, so difficult that nobody dares to suggest that we should be examined on it, so necessary that nobody can regard it as optional. Fools of the deepest dye fondly imagine that they are what they call "good judges of character." There are fools who will tell you the exact reasons of your own thought, word, and deed; they will estimate, measure, and explain motives and instincts, and passions and sorrows; they will prophesy what you will do next, and will tell you precisely what you would have done yesterday if you had not been thinking of something else. Beware of this conceited and slipshod state of mind; keep always before you the supreme difficulty, the absolute necessity, of trying patiently and humbly to understand, just a little, your fellow man. I am reminded of that curious phrase used, in one of the Gospels, of Christ, "He knew what was in man." To hear some people talk, one might think that such knowledge came natural to them.

Practice, I am sure, does help us, so far as we are helpable, to learn men and women: and that is enough, of itself, to make us glad of our profession. This learning is essential to the proper treatment of our patients; and, if we have it not, the extent of our work is imperfect, though it should cover all the way from Æsculapius to Sir Almroth Wright. Truly this insight, or wisdom, or judgment, or whatever we ought to call it, is the very making of the best sort of practice; it keeps us from any close resemblance to a tradesman serving a customer.

But we enjoy, in practice, not only the pleasure of understanding our patients, but the pleasure of pleasing them. Of course, now and again, we come across some ungrateful blockhead, or some stingy person who pays for his life as if it were a suit of clothes: but we do at last become, if we deserve it, singularly happy in people's gratitude and friendship. Indeed, it is so easy for us to gain this happiness, that we hardly trouble to count our winnings.

Still, in this amazing world, nobody gets all that he wants; the world could not go on if we did; it would not be the world at all, it would be something else, mostly hell. None of us

must imagine that he will ever be rich, or famous, or leisurely, or fashionable; each of us must make up his mind to carry about with him, always, a heavy burden of care, disappointment, and uncertainty, till he retires, which is a joyless time for most of us, or, what is more probable, till he lays down his burden at Death's feet.

Well, then, shall we try something else? Shall we give up the whole thing? Think well, before you do that. A few of us, doubtless, ought to do it. Their true vocation is waiting for them, in the divine Providence, somewhere round the corner. They made a mistake when they chose to be doctors; they had better correct it without delay. But every profession or business has its drawbacks, its long stretches of waiting, its years of drudgery: and he who leaves our profession for any other may be throwing away the substance for the shadow.

For we have this substantial privilege, that we are, or ought to be, both artists and men of science. Like a child on a swing hung between two trees, so we disport ourselves between the Tree of Knowledge and the Tree of Life. Happy is he, says Lucretius, who has been able to find out the causes of things: and we are really doing that. The causes of things have a most unkind way of receding beyond our grasp: they slip away, a little deeper, just as we discover them; still, we have the happiness of the quest: we are always discovering where to look for them. And this quest, which is our science, goes hand in hand with practice, which is our art.

Artists, mostly, perform on such instruments as marble, canvas, or instruments of music: we, and we alone, perform on man. This perilous honour, this immeasurable responsibility, is given to none, save only to us. No wonder that young doctors are apt to look solemn: that is how they feel, and I should be sorry to see them looking otherwise. It is no more than ordinary decency that he should wear a serious face, whose art is practised on the living and sensitive bodies of men, women and children: his works of art are those bodies restored to health, and his mistakes may be their death.

Therefore, let a man who intends to enter our profession examine himself: let him not wait for the examiners to do it for him. Let him ask himself, as it were on his knees, not, Is practice good enough for me? but, Am I good enough for practice? It is fairly certain that the answer will be in the affirmative; still, he ought to ask the question.

It is not, as affairs are now, a clear outlook for him; this bewildering year has been so full of surprises that nothing has been clear, except the weather. The old landmarks have been moved; the old order changes, giving place to a good deal of disorder; and our profession is peering this way and that, trying in vain to see what is going to happen to it next. The old individualism, the old personal authority of the doctor, begin to be called in question: indeed, to many of the public, they have the air of some Georgian portrait, some "doctor of the old school," with knee-breeches and frilled shirt complete, and a very septic tail-coat buttoned tight across him. To-day, more than ever, we are the servants of the public: and they talk of running us as a national interest, like railways or the British Museum, till we are apt to think that we are as different from the doctors of the old school as a man in khaki is different from a man in armour.

But, as a matter of fact, the essential qualities of the doctor's life are not affected by medical politics, nor by democracy, nor by any amount of National Insurance Bills. No power on earth can reduce a man's individualism and authority, so long as he is strong enough to hold and exercise them. Only, to be strong enough, he must work hard, year in year out, till he has so established his position in practice that it cannot be taken from him. That is what it is to be successful in our profession. The successful doctor may or may not make a large income; he may or may not make a great name. But he is independent of the opinions of lesser men, he is indifferent to their criticism; he has authority, and makes good use of it; he loves his work: and we might say of him, that his kingdom is not of this world, for it is founded on a thousand acts of most unworldly kindness and goodwill. And, as he thus expends himself, so he is paid back, more than ever comes to his knowledge.

Passim.

SELDOM in the history of medicine has the new student entered upon his career more set about by warnings and more discouraged by pessimistic prophecies. Seldom has his future been made to look more uncertain; seldom has he received so little encouragement from those to whom he looks for advice. We would, however, congratulate him upon his choice of a profession, and would assure him that in the practice of medicine he will find happiness worth many pounds per annum, and that the attractions of his work will soon convince him of the wisdom of his choice. Success is born of enthusiasm, and we would urge the new man, whatever else he may be, to be keen. We quite admit that it is difficult in face of the lugubrious articles of the *B.M.J.* and the *Lancet*, but difficulties are not overcome by hand-wringing, especially in print, and success is not for the irresolute.

THE new student has been particularly unfortunate in that he has from the very beginning been shown an unparalleled exhibition of the commercialism which has been creeping over medicine so rapidly of late. We would ask him to forget what he has read, and to enter confidently the garden of possibilities which awaits him if he will only seek it. Let him but once realize that infinity of attractions which constitutes the fascination of medicine; let him but realize what chances of self-realization and intellectual eminence are before him, and he will forget easily enough. We are not competent to paint the possibilities of medicine, but the student will find from the moment when he first comes into contact with patients a satisfaction which no amount of *British Medical Journals* can destroy. As Mr. Stephen Paget points out elsewhere in our columns, it is the chances which medicine affords of studying and understanding human nature which give it its distinctive character, and the new man will soon find that he will resent, as we do, any attack upon his profession as he would upon any of the other things that really matter in his life.

THE axiomatic assumption that money plays a most important, if not the most important, part in the choice of a career, is to our mind as regrettable as it is untrue; and the prostitution of professional ideals for political purposes in the medical press is a new development in medical journalism, which is extremely undesirable. We know that we lay ourselves open to taunts of youthful enthusiasm and altruism when we assert that success is not measured in pounds, shillings, and pence; but it is one of the privileges of experience to scoff at youth. Therefore, we would bid the newcomer cherish his ideals, and place them upon a pedestal where they shall be out of the way of damage by journalistic mud and political jobbery.

WE are pleased to announce a further extension of the system of teaching by demonstrations on selected cases in Out-Patients. Mr. Mollison will show cases from the Aural Department on alternate Mondays at 12, beginning on October 2nd; and Dr. Hertz will, later in the session, hold the "Cliniques Thérapeutiques," which were announced in a previous number of the GAZETTE, to alternate with these. In addition to these demonstrations, cases are shown at Nerve Out-Patients every Wednesday at 12.15, and special demonstrations are held in the Genito-urinary Department at intervals, the dates of which are announced beforehand in the GAZETTE. The classes are open to all Guy's men, and we would repeat our belief that they constitute the most efficient method of teaching the more senior men. We understand that in connection with the appointment of a Fifth Assistant Surgeon, the whole question of clinical lectures in general is to be revised, and we hope that the authorities will bear in mind the assured popularity of Out-Patient demonstrations and will, perhaps, give them a more wide and official application than they have at present.

OWING to the lamented death of Dr. Pavy, the Opening Dinner and Conversazione of the Physical Society, at which Dr. Pavy, as Senior Vice-President of the Society, was to have presided, has been cancelled. The ordinary

meetings of the Society will commence early in October. We would urge upon men the advisability of going to them and of taking part in the discussions and of showing cases or specimens of interest with which they may meet.

We publish in our Correspondence Columns a letter from Mr. Cressy, which, to our mind, rather exceeds the bounds of fair comment. We do not in the least object to criticism, but we were unaware that it was customary for correspondents to dictate the policy of the paper to which they write. Personal abuse is a very weak form of argument and mostly recoils upon the head of the writer, while the stigma of youth is one from which the years will rapidly relieve us. It is by no means our intention to confine our attention to purely hospital matters as our correspondent dictatorially recommends, while the fact that we have published our correspondent's letter is, we think, a sufficient answer to the charge of taking an unfair advantage of our position as editor.

It has been brought to our notice that the custom which at present exists of not announcing the list of House Appointments until just before the new duties begin, entails a good deal of hardship upon unsuccessful candidates. These men are probably desirous of of applying for an appointment elsewhere, and often, owing to the lateness with which the result of their application here is announced, they are unable to do so. Applications for posts at other hospitals have mostly to be sent in only a comparatively short time before, and therefore it is only necessary that the list of House Appointments should be announced a little earlier than they are at present for the matter to be remedied.

We have received numerous suggestions in regard to the question raised in the Gazette, of the advisability of appointing a fifth out-patient officer, and the objection has been urged that the fifth man, after working through the arduous appointment of Out-Patient Officer would not obtain a house appointment. This objection is certainly a valid one, although in some cases it might be quite desirable that he should not. The difficulty could, however, easily be surmounted by a slight alteration in the times at which the appointment of Ophthalmic House-Surgeon falls vacant. If this appointment were to begin in April and October instead of, as at present, in February and August, the fifth Out-Patient Officer would be able to proceed to the appointment of Ophthalmic House-Surgeon in April and October, and to that of Obstetric Resident in January and July.

The commencement of the October session will see the inauguration of the Special Children's Department at the Hospital. At present this will be limited to an Out-Patient Department, and Dr. Cameron will hold a Special Children's Out-Patient day on Mondays. Out-Patients will be seen on the throat floor, and we understand that the age limit has been fixed at seven years. There can be no doubt about the necessity of having a special department for the treatment of diseases of children, and when the projected children's ward is built a great blessing will be conferred upon patients in the general wards, whose rest is so often broken by the crying of the babies who are at present distributed about the general wards.

We have recently received several coutributions to the Gazette unaccompanied by the name and address of the sender. We would take this opportunity of pointing out that we cannot in future publish any articles which are not guaranteed by the name of the writer, although this latter need not necessarily be for publication. We would further urge both men and nurses to send contributions to the Gazette, or, failing that, at least to let us have the benefit of any ideas or suggestions they may have for articles in the Gazette.

We understand that an addition has been made to Clinical in the form of a dog of uncertain pedigree, but of irreproachable manners. We would welcome him to the Hospital, and trust that his career may be a long and prosperous one. He would do well, however, to take a

word of advice, namely, to beware of cats, and to treat Bunch with the respect due to his high office.

OUR attention has been drawn to several errors in the formulæ published in our last issue. The corrected formulæ are as follows:—

Collutorium Chinosolis.

Chinosol Mouth Wash is a 0·5 per cent. solution of Chinosol in Water.

To be used with an equal quantity of Hot Water.

Collutorium Formald hydi.

Formaldehyde Mouth Wash is a 0·2 per cent. solution of Liquor Formaldehydi in Water.

To be used with an equal quantity of Hot Water.

Solvellæ Formaldehydi, Formaldehyde Dental Tablets.

Take of

Formaldehyde	$\frac{1}{12}$ grain.
Boric Acid in powder	1 grain.
Oil of Peppermint	$\frac{1}{100}$ minim.
Oil of Wintergreen	$\frac{1}{100}$ minim.
Milk Sugar	7 grains.

Mix, granulate, and compress into tablets.

OWING to pressure on space several notes and articles have had to be held over to the next issue of the GAZETTE.

Notes from the Aural Department.

BY W. M. MOLLISON.

As at all hospitals in the poor districts of London, cases of suppurative otitis media form a large proportion of those applying for treatment, and among these cases children figure very largely. The out-patient treatment of children with discharging ears is most disheartening; the supplying of lotion and drops, and instructions, does not necessarily lead to the syringing of the ears. It is true that in some cases, after removal of adenoids, septic teeth and, perhaps, tonsils, cessation of the discharge does take place, but, often on account of obvious neglect, the otorrhœa continues. In order to try and combat the difficulty of home syringing the principle of drainage has been applied, and this is now used in many cases in the out-patient department. The technique is as follows: the ear is carefully cleansed with pledgets of blue wool, and a strip of iodoform ribbon gauze, about three inches long is inserted into the ear down to the membrane, this is carried out twice a week; the patient is given instructions to remove the gauze after twenty-four hours, and to pour in a few drops of hydrogen peroxide twice a day. The results of the treatment have certainly been encouraging, and certainly the discharge has become less in many, and stopped in some, of those who attended regularly. Recently this "gauze" treatment has been supplemented by the application of the so-called "scarlet-red ointment." This scarlet-red is a synthetic compound, and has the composition indicated by the name di-amido-azo-toluol; it is a red-coloured powder. For practical use it has been made up by Mr. Finnemore into an ointment of a four per cent. strength with soft paraffin. A small amount of this "scarlet" ointment is inserted into the ear on the end of a strip of gauze, and the gauze is changed twice a week; in this case the patient is given instructions to leave the gauze in place. Under this treatment some cases clear up in a remarkable manner, but it is not yet clear which class of case is suitable for the treatment, though it certainly has succeeded when various other methods have failed. Two instances may be cited: the first, a girl of 20, who had a right-sided chronic otorrhœa of some three years standing; she had no adenoids or nasal obstruction, and no obvious source of infection in the mouth; the right membrane showed a central perforation. For nine months she had been treated by syringing with carbolic lotion and hydrogen peroxide drops, and by gauze strips and peroxide drops, with no improvement at all, conservative treatment seemed of no avail, and it was decided to admit her to the hospital with a view to some operative treatment; before this occurred scarlet ointment was applied, and after three attendances the discharge had ceased, and after a week or two the perforation had healed completely. The second case was similar, but of longer duration. A man of about 25, had, for ten years, suffered from otorrhœa, and had been treated at intervals during that time; recently he had attended regularly in the out-patient department and had had various forms of treatment energetically applied for some months. Scarlet ointment was applied, and after a few applications the discharge had entirely ceased. The patient volunteered the information that it was the first time for ten years that his ear had ceased discharging.

This ointment has also been used in the after treatment of cases of radical maistoid operation; it is, however, not certain that healing takes place more rapidly under this than the usual methods.

Some cases of considerable interest have been seen in the department recently, and among them a number of cases where syphilis was the causative factor. *Secondary syphilis* was responsible for two interesting cases. In one case it attacked the external ear in the form of an ulcerative meatitis, in the discharge from which spirochæta pallida was found. This case has already been reported (G. H. G., 10th June, 1911). In a second case the disease produced a *nerve-deafness*; the following notes of the case were collected by Mr. J. L. M. Symns:—

A man, aged 38, attended the Out-patient Department complaining of deafness of a month's duration. He was covered with a typical secondary syphilitic rash, and had had a primary chancre nine weeks previously. The onset of the deafness had been rapid. In three or four days' time, from the hearing being normal it had become reduced to a condition, where the ordinary conversational voice was heard at a distance of about four inches from either ear. The appearance of the tympanic mem-

branes was normal. Tuning-fork tests gave the following results: bone conduction (Schwabach's test) was much shortened; Rinné's test was positive, that is to say, the conduction of sound via the natural passage, the external auditory meatus, was better than through the mastoid process. The lower tone limit was almost normal, as was the upper tone limit. The conclusion to be drawn from these tests was that the man was suffering from a nerve deafness, and that this deafness was due to the syphilis. The man had only begun mercurial treatment by injection some two weeks after the onset of the deafness, so that mercury could not be the cause of the deafness, as it sometimes is in syphilitics.

Congenital syphilis was the cause of deafness and giddiness in the following case:—A girl of 23 attended the Out-Patient Department complaining of deafness and attacks of giddiness and tinnitus. She was unhealthy looking, and one's attention was immediately drawn to the eyes, where obvious signs of a previous interstitial keratitis were visible; the teeth also were suggestive, but not typical, of the disease; the tympanic membranes were normal in appearance. The deafness was very marked, conversation could only be heard quite close to the ear, and, by tuning-fork tests, as above, the deafness was shown to be a nerve deafness. The girl also had bad attacks of vertigo once or twice a week. Perhaps the most striking thing about the case was its response to treatment. She was ordered a blistering fluid and instructed to blister over both mastoid processes, and keep using the fluid at intervals in order to keep the area sore. In three months' time she returned, and it was difficult to realise she was the same patient. She expressed herself as cured, she had no vertigo nor tinnitus, and could hear whispered speech at a distance of some feet.

This treatment by blistering is recognised as being almost the only treatment that has any effect of these cases of congenital syphilitic deafness.

Change of Address.

T. E. Ashdown Carr, M.B., B.S., from the Eye Hospital, Bridgewater, to the Cheltenham Eye, Ear and Throat Free Hospital, North Place, Cheltenham.

A. E. Lees, M.B., B.S., from the College, Guy's Hospital, to 25, Manchester Road, Knutsford, Cheshire.

Graham Poock, B.A. Cantab., L.D.S. Eng., from 295, Vauxhall Bridge Road, S.W., to 37, High Street, Banbury, Oxon.

R. Denman, to c/o Medical and Health Department, Mauritius.

A. P. Marsh, L.D.S. Eng., from Guy's Hospital to 14, Mill Street, Kidderminster.

C. H. Wells, Esq., from Friern Lodge, Westwood Park, Forest Hill, to "Springfield," Avenue Road, South Norwood Park, S.E.

The Treatment of Chronic Intestinal Stasis.

By W. ARBUTHNOT LANE.

As I predicted, the interest that has been taken in chronic intestinal stasis, its causation, its symptoms, its wide-spread effect upon the several tissues of the body, and its treatment, has increased with enormous rapidity, and is now occupying the close attention of the ablest minds in the profession.

When I first called attention to the subject, it was received with scepticism, indeed, with ridicule; the presence of obstructions was first denied, then regarded as universal, and having no bearing whatever on stasis. All that is now changed, and progress is being made on all sides. This is particularly the case in America, where surgical science advances in a degree and at a rate exceeding anything in the old world. I feel under a very considerable obligation to my American colleagues for the keen manner in which they have dealt with the subject.

I would like to call attention particularly to the treatment of the condition in its various phases. Before attempting treatment, however, it is necessary to determine the locality and the degree of the obstruction as accurately as possible. This can be done to a great extent by careful manual examination of the several viscera. A little patience and experience enable the observer to determine the outline of structures with a facility and certainty which at first seems impossible. The knowledge gained in this manner can be supplemented and verified by tracing six ounces of bismuth through the drainage scheme. All are familiar with Dr. Jordan's excellent work on this subject on our cases. It is well to remember that the state of obstruction is a variable one to some extent. While the patient is fresh and in good condition the abdominal muscles may so support the viscera that material passes readily through a portion of the intestinal tract, which becomes more or less completely obstructed by the dropping of the viscera, associated with a lax abdominal wall in a tired or debilitated subject.

In the slighter degrees of obstruction the use of an abdominal support and a sufficient dose of liquid paraffin is enough to counteract any defect in the drainage. The abdominal support

not only keeps up the viscera, but it prevents the blood puddling in the large veins in the mesentery. In this way it keeps the brain more fully supplied with blood, and renders that organ more efficient and less easily tired.

It is a curious thing that while paraffin has only very recently been employed for this purpose by the medical man, it has been in use for time immemorial amongst miners and savage races for the treatment of almost any known disorder. Just how paraffin acts is not perfectly clear. In animals it destroys the worms that infest the intestinal tract, and such parasites as live on their skin. The eggs of ascaris lumbricoides, which will go on dividing in glacial acetic acid, when placed in paraffin die, and no division takes place; and skin mycosis in a large bird, which resisted treatment with iodine, has been cured by daily applications of paraffin forcibly rubbed in. It also cures the dysenteric conditions to which animals are so liable, especially in captivity. Yet paraffin is apparently perfectly innocuous to the human subject, and losses none of its bulk in its passage through the intestinal tract.

The abdominal support is best made in the form of a spring truss, which controls the abdomen below the level of the umbilicus. That form which we employ so largely at Guy's Hospital, both for men and women, is very efficient. It is quickly applied, it lasts a long time, and does not get out of order. When the obstruction is sufficiently aggravated that it cannot be efficiently treated in this simple manner, operative interference becomes necessary in one form or another.

I would first call attention to that form of stasis which exists in tubercular subjects. I do not believe that a patient can become tubercular, except by inoculation, unless the resisting power has been lowered by auto-intoxication from chronic intestinal stasis. Curiously enough, in these cases the stasis depends largely on a remarkable elongation of that portion of the large bowel that commences at the brim of the true pelvis, and occupies this cavity. The obstruction and progressive elongation of this portion of the bowel is due to the resistance afforded by a series of loops which puddle in the floor of the pelvis, and from which the fæcal matter is evacuated with great difficulty by expulsive efforts, however violent.

The degree of stasis in these cases can be determined by means of bismuth, and we have at the Hospital for Sick Children a very interesting series of photographs taken before and after operation. They are being classified by Mr. Barrington Ward, the Medical Superintendent, who is obtaining all the details in connection with them.

In these cases the ileum is divided, and is put direct into the elongated pelvic colon or rectum. The operation is, in these circumstances, very easy to perform because of the great mobility of this elongated segment of the large bowel. After the anastomosis has been made, the peritoneum intervening between the large and small bowel is picked up in a running suture and the interval obliterated. This is a very important part of the operation.

An œsophageal tube is passed up through the rectum, through the junction up into the small bowel for about 8 to 10 inches. It is retained in position for six days; it serves to drain the small intestine, and so to avoid any chance of blocking up the newly-made junction. Great care is taken not to damage the acquired adhesions which form at the brim of the true pelvis at a very early period in the life of the individual, and which fix the colon at this point. The kink formed in this way is of great importance in preventing the back flow of fæces. Should the kink not have developed, fortunately a rare occurrence, fæces may pass back along the length of the large bowel, and the symptoms of auto-intoxication may be unrelieved.

I would remind you of the condition of ileal obstruction to which I called attention,* and which is produced in one of three ways. The most common results from the formation of a band or mesentery; less commonly the effluent is controlled by an appendix which is dragged upwards and inwards behind the end of the ileum; and rarely, the cæcum being fixed, the passage of material through the ileum is blocked at the pelvic brim by the accumulation of material in the small intestines, which, in very feeble, thin subjects, may puddle in the floor of the true pelvis. In consequence of the accumulation of material in the small intestine, the duodeno-jejunal junction is kinked, and the duodenum becomes distended. This affects the first part of the duodenum almost entirely, since the second and third parts are buried beneath the peritoneum. Inflammation

* The Kink of the Ileum in Chronic Intestinal Stasis. (Nisbet & Co.) 1910.

of the first part of the duodenum of varying severity results. The contents of the stomach are also dammed back, and the strain upon the lesser curvature may also produce a varying degree of inflammation in this situation resulting later in the formation of an ulcer which is very liable to become cancerous.

The treatment of these conditions varies widely. The duodenal condition is commonly treated by gastro-enterostomy, which I have shown to be an unscientific and useless procedure unless there be mechanical obstruction to the outflow consequent on cicatrisation of an ulcer.

In the case of a kink produced by a band, if there is no obstruction in the large bowel producing stasis, it is sufficient to divide the acquired mesentery and to cover up the raw surface which, in severe cases, results from its division by a careful plastic peritoneal operation. The same applies to the effluent from the ileum when controlled by an appendix, accompanied or not by an acquired mesentery. The removal of the anchored appendix and of the acquired mesentery should it exist as well, is usually sufficient to free the obstruction in the ileum. In either case, if there be definite stasis in the large intestine, the ileum should be divided and put into the rectum.

In the simple static cases forming the third group, an ileo-colostomy should always be performed. Never put the ileum into the large bowel above the level of the brim of the true pelvis, since the communication is then effected above the last kink or obstruction, which, curiously, is one of the earliest to develop.

Ileo-sigmoidostomy is a bad operation on this account. I have given it up for a long time.

Removal of the large bowel is called for when material passes back into it, or when there is much pain from its distension with gas.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

The Doctrine of Signatures.

THERE is a belief, very wide-spread among primitive people, that many at least of such plants as are of service to mankind are marked by some sign by which their peculiar virtues may be known; it is an expression, one might suppose, of man's belief in himself as the centre and pivot of the universe, developed along the lines of the "sympathetic" or "imitative magic" of the anthropologists.

Many of the plants in the old herbals were selected on this principle, eye-bright, for example, whose clear white, blue-veined petals, resemble somewhat the sclerotic, was used as an eye-wash; the heart-shaped leaves of the trefoil as a cordial, and an extract of the brittle, but rapidly-growing roots of the comfrey (symphytum) was given internally to promote the union of fractures. Animal remedies were similarly employed; powdered crabs were given for cancer, and it was held that jaundice might be cured if the patient gazed upon a certain yellow bird, still called the "icterine warbler"; as the bird was rare, and only found in remote and unfrequented woods, this remedy provided the physician with a convenient means of saving his reputation in intractable cases, and at the same time removed from the public eye the all too obvious evidence of unsuccessful treatment.

Towards the middle of the sixteenth century this vague superstition crystallised into a theory known as the "Doctrine of Signatures," which may almost be said to have given rise to a new school of therapeutics. Briefly, the doctrine held that for every disease there existed in natural remedy, marked by a beneficent providence with an image or signature by which its appropriate use might be known.

Oswald Crollius, Gian Baptista Porta, and Doctor Fludd, the mystic, were the chief exponents of this doctrine.

Crollius belonged to the school of the Neoplatonists and believed in a mystical correspondence and sympathy between man and the universe, between the microcosm and the macrocosm, his book upon this subject he calls "A Treatise of the Signatures of Internal Things, or a True and Lively Anatomy of the Greater and Lesser World." He wrote with piety and enthusiasm, urging the physician to leave the study of the outward and material parts and to concentrate his attention upon the inward and mystic virtues, which he said "are wont to be drousily passed over in noxious silence by vulgar herbalists." He claimed, with a splendid optimism, "that there is no thing found in Nature which hath not some medical virtue." The signatures, he said, might refer either to parts of the body or to the disease itself, and he classifies his remedies accordingly. He discovered in the walnut the perfect signature of the head, the green rind might be used for wounds of the scalp, the powdered shell for fractures of the skull, the thin inner skin for meningitis, and the white convoluted kernel for diseases of the brain. The ear-like leaves of

the cyclamen were to be given in earache, and ripe peaches which "pit on pressure" for septic, œdematous wounds. Crollius, like the priests of Osiris before him, saw a mystic meaning or symbolism in the re-birth of the wheat from the dead grain, and hinted at the raising of the dead, but he felt that here he was treading upon dangerous ground, and to a list of his proposed and forthcoming works he adds this quaint, cautionary postscript: "*But not too far Crollius!*"

Baptista Porta expounds the doctrine in the first chapter, "de causis rerum," of his handbook of "Natural Magic," rather an ambitious chapter-heading one would say, but Baptista Porta was a confident and versatile writer, and his book includes treatises on agriculture, cooking, and the art of catching birds, as well as upon the transformation of metals, optics and pharmacy. He pointed out, with rather superfluous ingenuity, that many drugs of well-recognised value, supported the truth of the doctrine; the amethyst, for example, whose powers of protecting the wearer against the fumes of wine were well known, and, indeed, indicated by its name, derived its virtue, he said, from its deep wine-purple colour. The doctrine, indeed, was in some measure retrospective, for the temptation was great to attribute to this ingenious theory the results obtained by an honest but unthinking empiricism; the poppy had been used as an hypnotic long before Crollius saw in it "the signature of a head with a crown."

Paracelsus preached the doctrine with his usual intemperate zeal, and roundly accused of atheism those who ventured to oppose it; he warmly recommended powdered topaz and the yellow juice of the celandine as an excellent remedy for the jaundice. The use of the juice of the squirting cucumber (elaterium) "for the dispersion of whey-like humours" is claimed as a discovery by signature. If the disease referred to is ascites, as seems most likely, this is an interesting anticipation of one of the modern uses of the drug, or, perhaps one should say, of wrong thinking leading to right results.

In spite of so much ingenuity and enthusiasm the doctrine did not always meet in practice with that success which its faith in the Divine Providence might seem to have deserved; the signatures were frequently obscure and hard to interpret, and sometimes actually misleading. The arum, for example, whose leaves bear well-marked purple blotches, when administered in cases of purpuric fever produced the most violent purgings and vomitings, and, indeed, as Sir William Osler would say: "A fatal issue was not infrequent." It was even hinted that the evil one himself had taken this opportunity of confounding mankind, and had altered or transposed the signatures. The pious upholders of the theory had, as it were, reckoned without the devil, and were greatly discouraged. But the early practitioners were not easily daunted by negative or even contrary results, and the doctrine was sufficiently alive in 1720 to be attacked by Dr. Paris as "the most absurd and disgraceful hypothesis that has ever disgraced the annals of medicine."

F. A. H.

The O.P.O.

When the Surgery's full of the Boro',
And the fleas are hopping around,
When the men and the women are squabbling,
And the yells of the babies abound,

How delightful to sit for a morning,
And do O.P.O. all alone!
First infusing a D. & V. baby,
Then setting a joint or a bone!

Oh! it's pleasant to hear of a police-case,
When you've just settled down once more,
To talk to the mothers of bismuth,
And the feeding of babes by the score!

It is difficult not to look worried
When Sister *again* comes to say,
"There's a burn, bite, and scald in the third room!
They've waited since sunrise to-day!"

It is nice, on the way, to encounter
A Nurse, who is rushing in haste,
"You are wanted *at once* in the fourth room,
There *is not* a moment to waste!"

At this minute to meet the two dressers,
Each *must* have you first at *his* end,
The Pro. also wants you in F. room,
A babe's mustard-bath to commend.

Then when every corner is crowded!
And the babies are sprawling the floor!
And the O.P.O.'s nearly distracted!
A B.I.D. comes in the door!

And so he goes on ever daily,
And wonders the reason why
There can't be an O.P.O. extra
Enrolled on the list of Sir Guy.

"A NURSE."

University of London Musical Society.

THE Session 1911–1912 of the University of London Musical Society will commence on Monday, October 9th, at 6 p.m., for the Choral Section, and 8 p.m. for the Orchestral Section.

The meetings are held every Monday at the above times at the Botanical Theatre, University College, Gower Street, W.C., when choral and orchestral works, together with madrigals and part-songs, are rehearsed under the conductorship of Mr. Richard Matthew.

There are several social evenings and an annual concert during the session.

All enquiries to be addressed to the Hon. Assist. Sec., William Ibbotson, Esq., London Throat Hospital, 204, Great Portland Street, W.

Pharmacy Notes.

BY H. FINNEMORE, B.Sc. (Lond.), F.I.C., Ph.C.

LIQUID PARAFFIN.

THE success attending the use of liquid paraffin in the treatment of constipation has stimulated enquiries regarding this hitherto neglected drug. It was introduced into the last edition of the British Pharmacopœia for use as a basis for spray solutions and for other purposes, but apparently it was not anticipated that it would be employed internally, and no dose was indicated for it.

Liquid paraffin is a member of a series of liquid and solid products obtained from crude petroleum by fractional distillation. By this means a large number of bodies is obtained which find extensive use in commerce and in medicine. The lowest members of the series are highly inflammable liquids used in chemical work as solvents, and are typified by *benzin* (to be distinguished from benzene or benzol, which are coal tar products), and *petroleum ether* or *ligroin*. The highest members of the series are hard solid substances such as soft paraffin, hard paraffin and ceresin. The intermediate members are thick liquids, and one of these known as liquid paraffin is the subject of this note.

Liquid paraffin of the British Pharmacopœia occurs as a colourless, thick, oily liquid with practically no taste or smell. It mixes with such fixed oils as olive oil, but is immiscible with water or alcohol. Generally speaking, it is not a good solvent, but dissolves small quantities of volatile oils, and such bodies as menthol or camphor.

Prescribing.

Liquid paraffin is prescribed in the pure form in doses of half to one fluid ounce two or three times a day. The smaller quantity once a day is often sufficient for patients not confined to bed. Although it has practically no taste, and most patients do not object to it, yet it is not pleasant to swallow this large amount of thick, oily liquid, and it is improved by flavouring with one minim to each ounce of one of the volatile oils, such as bitter almond, anise, cinnamon, cloves, lemon or peppermint.

For those patients who find it unpleasant to take on account of its oily nature, it is a good plan to prescribe it in the form of an emulsion, which appears to the writer to have the very decided advantage, that although it is as thick as the paraffin it can be diluted with water before taking to make a thin preparation which can be taken without the slightest discomfort.

For this purpose liquid paraffin may be treated in the same manner as a fixed oil, and ordered with one-fourth its weight of acacia gum, as in the following prescription :—

℞	Paraffini liquidi	...	ʒiv.
	Acaciæ gummi	...	ʒj.
	Olei limonis ...	...	ɱj.
	Aquam ad ...	...	℥j.

Or the Emulsio Petrolei cum Hypophosphitibus of the B.P.C. may be ordered, but the latter preparation contains gluside and hypophosphites, neither of which are required in this connection.

There are at least two varieties of liquid paraffin on the market at the present time, in addition to the pharmacopœal one. These are distinguished by their specific gravity, the official one has a gravity of 0·885-0·890. The next lighter has a gravity of 0·865-0·870, and is used as brilliantine by hairdressers, not, however, for the reason given to the writer that it was better than the ordinary vegetable oils because it contained none of the starch present in these. This is often fluorescent and, generally speaking, is not pure enough for internal use. The next variety has a gravity of 0·860, and is used as a basis for spray solutions, and although not usually given internally, one patient known to the writer, did very well on it.

INTRAMUSCULAR INJECTION OF MERCURY.

"MERCURY CREAM."

There is no doubt that the intramuscular injection of mercury has established the claim of its authors as a useful routine method in the treatment of syphilis. The preparation employed is essentially a suspension of finally divided metallic mercury. It was, in the first instance, made by diluting ordinary mercury ointment to a cream-like consistence with almond oil or liquid paraffin. Subsequently it has been made by continuously rubbing mercury in a mortar with some greasy substance until the particles of the metal are no longer visible with a lens. The best substance to use to effect this subdivision is wool fat, and on the score of simplicity this method leaves nothing to be desired, and is that adopted in the Navy where large quantities are prepared and where a machine is kept for this purpose.

For ordinary dispensing purposes and where no machine is available the method is tedious and wasteful of time. It is well known that when hypophosphorous acid is added to a solution of a mercury salt, the metal is precipitated in a finely divided condition, as a grey powder, and a method has been published for mercury injection which depends on this fact. The precipitated metal is then washed with water till free from impurity, and afterwards with alcohol and ether to get rid of the adherent water. It is then mixed with the base and is ready for use.

The weak part of this process is a practical one, for it was found that when the metal was washed with alcohol and ether there was a tendency for the grey particles to coalesce into a globule and the whole process had to be begun again.

The remedy we adopted finally was to omit the washing with alcohol and ether. The small amount of adherent water is soaked up in anhydrous wool fat, and the emulsion so formed helps to retain the mercury in suspension. The chlorbutol is employed on account of its local anæsthetic properties, and to prevent the pain

associated with the use of this preparation. The formula is as follows:—

Mercuric chloride	13·6 grams.
Hypophosphorous acid ...	100 c.cs.
Distilled water	a sufficient quantity.
Chlorbutol	2 grams.
Wool fat	15 grams.
Liquid paraffin	a sufficient quantity to make 100 c.cs.

Dissolve the mercuric chloride in 200 c.cs. of distilled water at a temperature of 50° C., filter if necessary, and to this add slowly the hypophosphorous acid diluted with twice its volume of water. Place in a water bath heated to 50°, and maintain that temperature for one hour. Wash the precipitate with water by decantation, and transfer to a sterilized mortar. Incorporate the sterilized wool fat and mix with sufficient sterilized liquid paraffin, in which the chlorbutol has been dissolved, to produce 100 c.cs. The dose is ten minims, which contains one grain of mercury.

SCARLET RED.

Scarlet red or Biebrich red has been recently employed in surgery as an ointment to promote the healing of ulcerated surfaces. From the various disinterested reports of its use, there seems no doubt that it has proved itself a valuable remedial agent. It belongs to the class of so-called azo compounds, the first of which was discovered by Griess in 1860. They are exceedingly important in the dyeing industry as they form the basis of a large number of valuable dyes. These azo compounds are characterised by the fact that they contain two or more atoms of nitrogen linked together; they are very reactive chemically, and some of them are unstable and explosive.

The starting point in their preparation is aniline or some other amino derivative of benzene. When aniline is diazotised it may readily be converted into benzene diazonium chloride,

$$\underset{\text{aniline}}{C_6H_5NH_2} \rightarrow \underset{\text{benzene diazonium chloride}}{C_6H_5NCl : N}$$

which can be coupled with phenols, such as phenol or naphthol to yield hydroxy-azocompounds—

$$\underset{\text{hydroxyazobenzene}}{C_6H_5N : NC_6H_4OH}$$

benzene diazonium chloride may also be combined with amino bodies such as aniline, and one may then obtain aminoazobenzene

$$\underset{\text{aminoazobenzene}}{C_6H_5N : NC_6H_4NH_2}$$

the amino group of which may, in its turn, be diazotised in the same way as the amino group of aniline. Thus, one obtained a compound, called a tetrazo compound, containing two groups of two linked nitrogen atoms

$$C_6H_5N : NC_6H_4NCl : N$$

which will combine with phenols in the same way as the benzene diazonium chloride mentioned above. When combined with β. naphthol the compound produced, which is chemically benzene-azo-benzene-azo-β.naphthol, is scarlet red, although this name appears to be used also to describe the sulphonic acid derivative of this and the sodium salt, as well as the corresponding methyl benzene derivative. Scarlet red is a reddish brown powder, sparingly soluble in water, but soluble in alkaline solutions and in soft paraffin, fats and oils. It is recommended for its astonishing power in promoting the growth of new skin over ulcerating surfaces, for cracked nipples, corneal ulcers 0·6 per cent., and syphilitic ulcers.

It is used in the form of an ointment from 4-8 per cent. in strength, but the latter sometimes produces irritation and inflammation. The formula used in the Hospital is as follows:—

Scarlet red	gr. xx.
Distilled water	ɱ xx.
Wool Fat	ʒii.
Soft Paraffin...	to ʒj

Rub the scarlet red to a smooth paste with the distilled water and add the other ingredients previously melted.

Finally, scarlet red is cheap and seems to merit attention. In view of the confusion attending the use of the name for different substances it may be useful to designate that for medicinal use by a coined name, and Tetrazonaphthol is comparatively short and descriptive.

NOTE.—The formulæ given in the above notes are in no sense official; they represent those in use and now on their trial.

Officers Training Corps' Camp, 1911.

WE may assume that anyone who joins some branch of the irregular forces does so that he may be more useful to his country in her need than he could be if he deferred his voluntary help till the day of that need. A health-giving holiday, or a percentage of service marks in some examination, or even the vanity of a smart uniform, may be inducements, but the former is the underlying idea of all voluntary irregular service.

With such a premise, we may state that the late camp of the O.T.C. at Bordon has been the greatest success. Everyone who has passed through it must realise that he will feel less at sea when the day of emergency comes than he would have felt before it. There can be no better answer to the pseudo-patriot who says he will be willing to serve when the day comes than a camp such as this. Unfortunately he is just the individual who cannot be got to camp, and if he go there he at once begins to spoil it by his lack of keenness and his continual querulous grumble, "what is the good of doing this?"

Those who have been there have learned that much more is needed than to shoot straight along a rifle, that this, indeed, is rather one of the minor things to an army. They also know how much more there is to learn, and realise that it must be several months after mobilisation before they are fit to take the field.

We went down on Saturday, July 22nd, to find that the advance party had pitched the camp on a delightful bit of ground, with plenty of space, a gentle slope, a stream at the bottom, and a hill view beyond. Sunday was a holiday after church parade. Work began on Monday with squad, company, and ambulance drill; not very exciting, and yet very necessary. By Wednesday we were well in hand with these, and the work had been varied by demonstrations of equipment by Col. James, and an excellent lecture on camp sanitation by Col. Aldridge, of the Sanitary School at Aldershot. On this afternoon we went out to Hogmoor and pitched a dressing station. One section had had the wisdom to bring tea and milk, so as to make use of the camp kettles. This tea became the rule afterwards, and was greatly appreciated. On Thursday the force was divided, and one half stayed near camp to pitch a tent division camp, while the other went to a farm near by to improvise a hospital out of a barn. Each party had its cooks, who produced some very palatable soups that were tasted by everyone.

On Friday the first of a series of events occurred which offered a training to the men that no set scheme could have done. They tested their temper and their discipline; they proved them to be ready and cheerful under emergencies in a way that was most creditable to all concerned. The weather had been getting hotter every day, and seemed to have reached the climax on Friday morning when Col. Aldridge was demonstrating in the Oakhangers stream the way to obtain water fit for use from a muddy and possibly infected source. Just then a telegram arrived from the Aldershot head-quarters that we must strike camp and pitch it again in the next field. The Second Aldershot Division were to come to Pavey Farm on the following Monday, and our piece of ground was wanted. After an hour or two of rest, which was occupied by laying prostrate and cursing the heat under the hedge, or enjoying the lovely warm day at the bathing-place in the stream, we set to work at 4.30 to change camp, and all worked so hard that by 7.30 all was done except for the cook-houses. Everyone thoroughly enjoyed what had promised to be the ruination of all enjoyment; and so quickly was the work done that the unit was ready to march out at 9.30 a.m. on Saturday for field operations.

Frensham great pond lies some six miles from Bordon; on one side is a sandy heath, excellent for a tent division camp; on the other, an inn equally useful for an officers' lunch. Uncooked rations had been taken, and the greatest credit is due to the cooks who, under Sergt. Paget and Corp. Godding, converted lumps of beef and uncooked potatoes and onions into a savoury stew.

But the pond was the thing, and when the work was done it became filled with men ignorant of the board that forbade bathing between 7 a.m. and 7 p.m. Several of the " B " section cadets had enough vigour to go across the pond and back, a swim of over three-quarters of a mile.

On the way back just before we reached camp we were caught in a terrific wind storm. The Aldershot sand blew up and around us, and begrimmed us in no time. But in camp it had done more. During the week a few showers had been enough to loosen the baked loam and make it an unstable grip for tent pegs, and in our move of the night before we had gone from the leeward to windward of a hedge, and we marched into camp after 10 hours' work to find the dining tents prostrate on the tables, the store tent blown down, and the cook-house flapping in the wind. Our spirits, however, could not be damped, and after 15 minutes' hammering to secure the rest of the camp, the fall-in sounded, and dinner was eaten on the ground out of mess tins, with the photographer taking snap-shots, and the clouds threatening to deluge us at any minute.

Church parade on Sunday was sacrificed to restore the damage of the day before, so that by Monday we were as comfortable as ever.

Monday, however, was the one unsuccessful day of the camp. We got the hump because we hadn't enough to do. On this day the Second Division marched on to the ground all around us, and stayed there two nights. Two mornings later they were gone, without a trace left behind—15,000 men with transport and horses, and they were all gone by 8 a.m., and had left the ground as clean as when they came. Fifteen thousand would populate a large town; their excrement would require elaborate sewers; the other refuse an urban council would inefficiently remove; yet here were 15,000 men with 6,000 horses and 1,000 vehicles on a piece of ground with a frontage from St. Thomas's Street to St. George's Church, and they left it clean enough for another Division to come there next week.

By Tuesday we had recovered our spirits and were working hard again, the same things indeed, dressing station and ambulance work, but each man's work was changed over, and he was given something fresh to do. The corporals, too, were put in command, while the sergeants acted as instructors.

Wednesday we struck camp, and on Thursday marched out on the first day of a trek, arriving at Bentley that evening, where we joined the infantry and artillery of the unit. We bivouaced on a lovely

field overlooking the river Wey. Friday was our last day, and the hardest. We started out at 8 a.m., with the artillery in front, the infantry and engineers next, and the field ambulance behind, with first and second lines of transport, each in its proper order, and after having marched to Farnham, we began a field day at 12 noon, and ultimately got into our bivouac at Ash Ranges at 7 p.m.

A camp such as this should be well reflected in the results for the certificate examinations to be held next month, and should induce a large number of new men to join or transfer into the corps.

T. B. L.

"Please, Doctor, Remember Our Grotto."

THIS, very probably, will be the first greeting which the new Guy's man receives when he reaches the hospital gates. The appeal comes from a typical little specimen of slum humanity, and the "grotto" is a curious arrangement of bits of grass, brick, and pebbles set out in the form of a square on the pavement against the wall. Perhaps at first the freshman may be more impressed by the novel sensation of being addressed as "doctor" than by the peculiar mode of begging in itself, but later he may be moved to wonder why it is the Borough children make these "grottoes" in the summer-time, and ask every passer-by to "remember" them. The custom of asking for cigarette pictures, which has become so common in the last few years, is simple enough of explanation, but this other seems a mystery.

If you ask the children themselves they cannot tell you what is the meaning of the grottoes, or why they build them. Other children make them about this time of year, and the habit is passed on from one generation of children to another, and they know nothing of its meaning, but only that it is a good play, and, with luck, a good method of procuring half-pence.

The custom seems to be confined to London, and particularly to South London. A correspondent of the *Westminster Gazette* recently stated: "I was told that the origin of the custom was that a Spanish ship—and it sticks in my mind that her name was the *Santiago*—was wrecked on our coasts, and that the survivors of the wreck collected oyster shells, and with them built a 'grotto' in imitation of the shrine at Compostella dedicated to their patron saint, St. James, partly as a thank-offering for their safety, and partly as a means of extracting pennies from the pious."

Whether this explanation be right in detail or not, it is certain that the custom is connected with St. James the Greater (Sant Iago), and St. James' Day, July 25th, is the proper grotto day. St. James was the patron saint of Spain, and he was also regarded as the patron of pilgrims to the Holy Land. His symbol was the scallop shell, which abounds on the shores of Palestine.* Hence he is represented in Christian art as a pilgrim with staff, gourd, and scallop shell. It became a custom among pilgrims returning from the Holy Land to wear a scallop shell in the hat to indicate where they had been, as in Scott's description:—

> "In his black mantle was he clad,
> With Peter's keys, in cloth of red,
> On his broad shoulders wrought;
> The scallop shell his cap did deck."

St. James, after establishing the Christian religion in Spain, returned to the Holy Land, and was there beheaded. Legend has it that his body was miraculously conveyed to Compostella, in Galicia, and that the marble slab on which it rested was covered with scallop shells. The cathedral at Compostella became the shrine of the saint, and was visited by pilgrims from all parts of Europe, and it is said that it was an old custom to set up a grotto of scallop shells on St. James' Day "as a hint to the pious who could not make a pilgrimage to the famous shrine at Compostella, that they might show their reverence to the saint equally well by bestowing alms on their poorer neighbours."

Failing scallop shells the, in this country, more common oyster shells were used in the construction of grottoes. An association with St. James is to be found here in the fact that the opening of the oyster season coincided with his day (August 4th in the old style). It became a proverb that "whoever eats oysters on St. James' Day will never want money." This may refer to the habit of collecting money by oyster shell grottoes, or a simpler explanation may be found in the fact that oysters were dearer on the opening day of the season, and, therefore, only the more well-to-do could indulge in them.

Scallop and oyster shells are not very common in the Borough, and most of the grottoes made by the children round Guy's are constructed simply of grass and pebbles and bits of brick. One sometimes wonders where, among the desolate slum back-yards, they find sufficient grass for their purpose. Certain it is that the kiddies do not realise that they are building to the memory of James the son of Zebedee, and keeping alive in the drab Bermondsey streets a Christian legend of long ago.

A. N. C.

* At the Church of St. James the Greater on Garlic Hill, Upper Thames Street, E.C., the saint's effigy, known as "old Jemmy Garlick," habited as a pilgrim, may be seen above the clock, and a scallop-shell marks the parish boundaries.

Neurasthenia.

CLINICAL LECTURE BY DR. A. F. HERTZ.

GENTLEMEN,—The words "neurotic," "functional," "hysterical," and "neurasthenic" are often used so loosely that I think it will be useful to devote some of my special clinical lectures to a description of the most important forms of non-organic nervous disorders. To-day I shall speak about neurasthenia.

In the first place I want you to realise that neurasthenia and hysteria are definite conditions, and that it is wrong to talk vaguely about a patient being neurasthenic or hysterical simply because you can find no evidence of organic disease. Neurasthenia may be defined as a condition of depression and irritability of the nervous system, which results in insufficiency of mental and bodily functions.

Ætiology.—In order to obtain a rational basis for treatment, it is of fundamental importance to consider in some detail the ætiology. There is no age which is exempt from neurasthenia; it may occur in quite young children and in extreme old age, but it is most common in adults between twenty and fifty years of age, when the exciting causes of the condition are most likely to be present. With regard to sex, neurasthenia differs from hysteria, as hysteria is more common in women than in men, whereas neurasthenia is quite as common in men as in women.

The most important predisposing factor in the ætiology of neurasthenia is heredity. A neuropathic tendency—a tendency to be affected with functional nervous disorders—is often inherited. This tendency shows itself very often in quite early childhood and is liable to become greatly exaggerated by injudicious education; a child is said to be nervous or neurotic, and under certain conditions such a child is liable when it grows up or in the later years of childhood to become neurasthenic or hysterical, or, under very unfavourable conditions, even insane. The neuropathic tendency is inherited from parents who are neurotic in some way; they may be neurasthenic, hysterical, insane, or epileptic. Although a very large number of people only become neurasthenic because they have inherited this neuropathic tendency, a certain number appear to have perfectly normal nervous systems until the exciting cause arises. But even in such cases the stability of the nervous system must be deficient when compared with that of people who are able to withstand an immense amount of nervous strain of a character and degree which would cause an average man or woman to break down.

Much the most important of the exciting causes of neurasthenia are those connected with mental over-work. This is already seen in neurotic children. It is rare for those who simply work very hard at school to become neurasthenic; but if over-work is accompanied by the excitement of examinations, then in predisposed children neurasthenia may develop. In adults also hard mental work and long hours do not often lead to neurasthenia unless the brain is working under strain. Working for examinations is the most common cause of neurasthenia in young adults; whilst in older people it is commonly the strain of hard mental work under unfavourable conditions, such as the association with worry in an unsuccessful business, the excitement of the Stock Exchange, or the irregular hours and absence of a weekly holiday in busy medical practice. Mental work may also cause neurasthenia if it is extremely monotonous in character; such soul-destroying occupations as teaching music to unmusical children, or acting as governess to a stupid boy or girl often leads to neurasthenia. This is especially likely to be the case if the teacher finds it difficult to earn enough to keep herself and those dependent on her. The eye-strain caused by an uncorrected error of refraction increases the liability of a brain-worker to become neurasthenic. Although worry spread over a long period is most often present, occasionally a single shock or severe worry of quite short duration is enough to produce neurasthenia in a predisposed individual.

Chronic pain is another important exciting cause of neurasthenia. Even if it is not very severe, it so affects the nervous system of people with a neuropathic inheritance that neurasthenia is likely to develop. Consequently neurasthenia is often associated with painful organic disease, particularly when the latter is situated in

the abdomen or pelvis. Predisposed patients suffering from chronic gastric ulcer often end by becoming neurasthenic; the neurasthenic symptoms are then added to those of the ulcer, and it is often difficult to diagnose with certainty whether all the symptoms are not functional in origin. The connection between neurasthenia and disorders of the female genital organs is of a similar nature, the presence of dysmenorrhœa or of constant pelvic pain being likely to lead to neurasthenia, especially if a congenitally weak nervous system is rendered still more vulnerable by anæmia due to excessive menstrual flow.

Physical over-work very rarely leads to neurasthenia, unless it is associated with worry, excitement or mental over-work. Thus a man may do an immense amount of hard work and not become neurasthenic; but the same amount of hard work, if it is done in a more or less unsuccessful attempt to earn a living, may produce neurasthenia. A war affords a good example of the effect of hard physical labour on the nervous system. So long as the war goes on a soldier may remain fit, but the hard physical work, the insufficient food, the excitement and the worry may lead to neurasthenia when the war is over, especially in officers, for whom the responsibility is greater than for privates. A man requires an exceptionally stable nervous system to be able to withstand the strain of working really hard for an examination whilst he is indulging in such strenuous recreations as football or rowing.

Although pregnancy is a physiological process, its frequent repetition at such short intervals that the mother is still suckling the last child when she becomes pregnant again is very likely to end in neurasthenia. This is due to the pain and loss of blood in parturition, the difficulty in obtaining the additional nourishment which is required during pregnancy and lactation, and in poor people the constant worry and fatigue involved in the care of a large family.

In men sexual excess is undoubtedly sometimes an exciting cause, although it must be remembered that what is excess for one man is not excess for another. Masturbation is an occasional factor in adults, and is one of the commonest causes of neurasthenia in children.

We now come to the toxic causes of neurasthenia. The toxins may be exogenous or endogenous. The most important of the former is alcohol; nicotine is probably another, as there is no doubt that excessive smoking is sometimes a factor in the production of neurasthenia. Other exogenous poisons which may be concerned are morphia, cocaine and lead. It would be incorrect to call the mental condition which results from taking excess of alcohol, morphia or cocaine neurasthenia, but in predisposed individuals chronic poisoning with these drugs may be one among several exciting causes which, acting together, lead to neurasthenia. Then there is the group of exogenous poisons produced by infections, the most important of these being the influenza toxin. Influenza is indeed one of the most common of all causes of neurasthenia. The toxin of no other infection can compare with it in its general depressing action on the nervous system. The neurasthenia which occasionally follows typhoid fever is due more to malnutrition than to the toxin of the disease; consequently it occurs much less frequently when patients receive an adequate diet.

Syphilis may undoubtedly be a factor in the production of neurasthenia, but its effects on the nervous system are so manifold that it is difficult to be certain in any case that its influence is not in part at least due to some organic change. Moreover, the prolonged administration of mercury may help to give rise to neurasthenia, although it may at the same time save an individual from a more serious disease of the nervous system. With some people, the mere fact of having syphilis so preys upon their mind that it acts as an additional factor. The volatile poisons inhaled by people working in crowded and ill-ventilated rooms uudoubtedly assist in the production of neurasthenia.

It is extremely difficult to determine what part endogenous poisons play in the production of neurasthenia. Gout and diabetes have been said to predispose to it, but I do not think that the evidence is very conclusive. A more popular theory at the present day is that poisons absorbed from the alimentary canal produce neurasthenia, for there is no doubt that

most neurasthenics suffer from some form of indigestion. I believe, however, that the digestive symptoms are primarily a result and not a cause of the neurasthenia. Formerly it was thought that poisons were absorbed mainly from the stomach. This view has been almost completely given up, as it has been shown that there is very little delay in the evacuation of a stomach dilated as a result of atony and that little or no production of poisons and no absorption take place within it. The theory of gastric auto-intoxication of twenty years ago has given place to the modern doctrine of intestinal auto-intoxication. Neurasthenia leads to constipation, and no doubt constipation aggravates neurasthenia, partly as a result of auto-intoxication, but more often as a result of a reflex due to irritation by retained fæces. Bacterial decomposition is invariably diminished in constipation, as shown by the greatly diminished number of organisms in the stools. The prolonged retention of fæces in the colon naturally leads to a more complete absorption of the products of putrefaction, but the total quantity absorbed—as shown by the composition of the urine—is rarely increased, and even when increased it is only exceptionally of any importance if the liver and kidneys are healthy, for the former renders the intestinal poisons innocuous, and the latter excrete them as rapidly as they are absorbed. The vicious circle is best broken by attacking the neurasthenia, which is primarily responsible for it; but it is well to keep the bowels open by means of aperients and enemata, as the patient is made to feel more comfortable; on the other hand no amount of treatment directed to the intestines alone will cure the neurasthenia.

Deficiency or abnormality of the internal secretions is probably responsible for many cases of neurasthenia, but we have still very little accurate knowledge of this subject. The neurasthenia which often occurs at the menopause and in many cases after double ovariotomy, as well as that occurring in men after castration, probably results largely from the loss of the ovarian and testicular internal secretions respectively, but it is difficult to exclude the purely mental effects produced by these operations.

The last group of causes of neurasthenia are those due to injury. The most important of these are accidents involving the head or the spine. The question of traumatic neurasthenia is of enormous importance to-day in connection with the Workmen's Compensation Act, as even now it is often difficult to get the legal mind to grasp the fact that neurasthenia is not synonymous with malingering, and that an individual may be completely incapacitated from work, although no objective signs of disease are present.

A less common traumatic cause of neurasthenia is surgery. It is more the excitement and worry involved than the shock of the operation which may lead to neurasthenia. I know one man with a neuropathic family history who had varicose veins successfully removed four years ago; he has been excessively neurasthenic ever since. It is, therefore, most unwise to perform operations on the kidneys, stomach, appendix, or colon, in neurasthenic individuals with the idea of curing the neurasthenia unless some definite organic lesion is present, which would require operation independently of the neurasthenia. Any temporary benefit which may follow such operations is most often simply due to the rest in bed and suggestion, and the final result is often deplorable. Few cases are more hopeless than the neurasthenic woman who has undergone repeated abdominal operations and is only too often eager for more. The "operation psychosis" and post-operative neurasthenia are two of the penalties that have had to be paid for the wonderful and perhaps too rapid progress of abdominal surgery.

Europeans living in the Tropics frequently become neurasthenic. In many cases excessive indulgence in whiskey is as important a factor as the prolonged exposure to heat. A short exposure to great heat, whether it gives rise to actual heat stroke or not, is also an occasional exciting cause. In this connection I may mention the wearing of excessive clothing both during the day and night, which Dr. Craig has shown is an undoubted factor in many women.

Symptoms.—I have already defined neurasthenia as a condition of depression and irritability of the nervous system, which results in

insufficiency of mental and bodily functions. Rapid mental fatigue is one of the most constant of the psychical symptoms; a patient with neurasthenia is unable to do mental work because he gets tired at once, and in most cases an attempt to work gives rise to a pain or other abnormal sensation in the head. The patient is unable to concentrate his attention, and consequently neglects his business. There is often some loss of will power, and depression of spirits is extremely frequent. The latter differs from that which occurs in melancholia, in which the depression is constant and without cause. In neurasthenia it is intermittent and due to causes, which are genuine enough, but produce an exaggerated effect. Neurasthenia is often accompanied by hypochondriasis, as the state of the health becomes a source of constant anxiety. The irritability of the nervous system results in the patient being easily upset by trifles, which normally would not affect him; he can always find something to worry about.

A patient suffering from uncomplicated neurasthenia never has hallucinations nor delusions; his memory is normal—a very important point—and he has no perversion of judgment. If any of these symptoms are present the case is not one of simple neurasthenia, but is either a form of insanity or of psychasthenia, a condition which I shall describe more fully another time. The various phobias which may occur in severe cases of neurasthenia are best considered under the head of psychasthenia.

One of the most common symptoms of neurasthenia is insomnia. The patient has difficulty in falling asleep, and often wakes up frequently during the night, so that in the morning he does not feel refreshed.

The smallest physical exertion gives rise to fatigue. This leads many people to think that there is actual weakness of the muscles; but the fatigue is really mental fatigue; the muscles may be well developed, and there is nothing of the nature of true paralysis. The ocular muscles are frequently affected, so that the eyes ache after reading for a few minutes. Rapid exhaustion also affects the viscera, particularly the alimentary canal. In most cases, as I have said, there are digestive symptoms. I have described them in previous lectures; the most important are nervous dyspepsia due mainly to atony of the muscular coat of the stomach, and constipation due to atony and deficient peristalsis of the colon.

The next group of physical symptoms are those due to the excessive irritability of the nervous system which results in a lowering of the minimal adequate stimulus and an exaggeration of the sensory response. Consequently visceral processes, which are normally imperceptible, become perceptible, and conditions, which would otherwise lead to nothing more than a sensation of slight discomfort, give rise to pain. A feeling of fulness, pressure or other vague uncomfortable sensation is felt in the head; actual headache is not necessarily present, though it is a frequent sequel to mental and physical exertion. The mere effort of sitting or standing causes the muscles of the neck and back to ache; relief rapidly occurs when the muscles are relaxed by lying down. A pleasant amount of sunshine becomes an intolerable glare, and the sound of distant music, the noise of traffic or the buzz of conversation becomes excessively annoying. The normal beat of the heart is felt and is described as palpitation, and the patient fears that he may die at any moment from heart failure. He feels the whole process of digestion—the arrest of food at the lower end of the œsophagus, the gradual distension of the stomach, the movements of the intestines and the filling of the pelvic colon.

In visceroptosis the afferent impulses, produced in the erect position by the constant drag of the viscera on the sensitive structures, to which their peritoneal supports are attached, give rise to no sensation if the individual is otherwise healthy. But if he is also neurasthenic, discomfort and pain result owing to the low minimal stimulus required to produce sensation. A moveable kidney, or a dropped stomach or colon is therefore not a cause of neurasthenia, and operative treatment is entirely irrational, but the support given to the viscera by a suitable abdominal belt relieves much of the general discomfort of neurasthenic patients with weak abdominal muscles, and thus contributes towards the cure of the neurasthenia.

Owing to the irritability of the central nervous system, afferent impulses also give rise to exaggerated reflex responses; thus, the hard fæces which collect in the bowel because of its atonic condition, lead to motor and secretory reflexes, which result in enterospasm and mucomembranous colitis. The reflexes which normally accelerate the pulse, produce an exaggerated effect in neurasthenia, so that palpitation is not only present because the patient is hypersensitive, but also because the normal afferent impulses give rise to excessive reflex acceleration. Vaso-motor reflexes are similarly exaggerated, and the patient may complain of flushing, heat in the head and cold extremities. Arterial throbbing may be visible, and the pulse suggestive of aortic regurgitation; a throbbing abdominal aorta is not uncommon, and may be the source of considerable discomfort and anxiety. The natural sensory and reflex effects of menstruation are increased, and neurasthenic men not infrequently complain of neuralgia of the testicles and excessive genital reflexes.

The concentration of the mind on the body functions may also lead to their inhibition; this is one of the causes of neurasthenic constipation, and is also the cause of psychical impotence.

Diagnosis.—I shall discuss the question of diagnosis more fully when I lecture on hysteria and psychasthenia. But there are two conditions, apart from these, which it is necessary to consider now, namely, laziness and malingering. Neurasthenia is a term which is now-a-days popular among the laity, and an individual who is lazy likes to be regarded as neurasthenic as an excuse for his laziness. One distinction is that the lazy individual is rarely too lazy to eat and he sleeps well, consequently he tends to become fat; whereas the neurasthenic patient generally suffers from anorexia and insomnia and loses weight. The distinction is very important, as the former may willingly undergo the Weir Mitchell treatment and say they feel better for it. But the "treatment" is simply a means of gratifying their laziness, and they quickly relapse into their old habits. On the other hand, the genuine neurasthenic is almost certain to benefit from the treatment.

It is often exceedingly difficult to distinguish traumatic neurasthenia from malingering; this is a matter of extreme importance in view of the Workmen's Compensation Act. It is sometimes impossible to be certain about the diagnosis, because although the definition of neurasthenia is clear enough and the symptoms are definite enough, they are nearly all subjective and not objective. There is often no change in the reflexes or tendon phenomena; thus, the knee jerk may be exaggerated, but it often is not, and it is sometimes even diminished. The diagnosis must often rest on what is known about the man's character, and the general impression gained from the examination of the patient as to whether he is telling the truth.

The cardiac irritability and emotional condition in the early stages of Graves' disease, especially when there is no exophthalmos, may be mistaken for neurasthenia. A more serious mistake, which should rarely be made if the patient is thoroughly examined, is to diagnose neurasthenia in very early general paralysis of the insane.

Treatment.—In order to obtain satisfactory results in the treatment of neurasthenia it is first of all essential to gain the patient's confidence. After a thorough examination has shown that no organic disease is present, the nature of his condition should be explained to the patient, and he should be told that when its exciting causes have been removed he will gradually recover his health; that his condition is curable, but that patience and determination will be required in order that he may be restored to health and strength. The history of his symptoms should be listened to with attention, but afterwards he should be encouraged to think of them as little as possible. He should be treated with sympathy and not—like the hysterical—with neglect. As the symptoms of neurasthenia are the result of nerve exhaustion and not of suggestion, they cannot be removed like hysterical manifestations by suggestion alone, and whereas a patient with hysterical paraplegia can be persuaded to walk, a neurasthenic should be advised to rest rather than fight against his feelings of exhaustion. If the patient has unbounded belief in his medical

attendant, he will take courage when told of the good prospect of an ultimate cure, and he will undertake whatever treatment is advised with the confidence which is essential for success.

A thorough inquiry into the patient's history will indicate what are the exciting causes of his condition. The removal of these must, as far as possible, be assured. In a large proportion of cases complete mental rest is required, and complete physical rest is often also necessary. The duration of the rest depends upon the severity of the neurasthenia. In very slight cases a week or two may be sufficient; in severe cases a year may be required before a return to full activity can be allowed. In mild cases excellent results are obtained by simply replacing mental by physical work, but care should be taken to regulate the latter so that it is insufficient to produce more than a slight and not unpleasant degree of fatigue.

Severe cases require strict Weir-Mitchell treatment. They must be kept in bed for five or six weeks, and every source of worry, excitement and anxiety removed. For that reason the patient is most satisfactorily treated away from home. He should see nobody, have no letters, read nothing, do nothing. This sounds very unpleasant, but a patient with severe neurasthenia after the first day or two generally becomes happy and contented. The rest in bed enables him to be fed up, for he is generally ill-nourished. Even if he has no appetite he should be persuaded to eat, and in time the appetite returns. General massage is of value whilst the patient remains in bed; abdominal massage is also useful when there is gastric atony and constipation. Electricity acts by improving the tone of the nervous system; the form we use most for this purpose at Guy's is static electricity, and there is no doubt that it exerts a most excellent influence on the headache and insomnia of neurasthenia.

In the past, it is probable that neurasthenics have derived as much harm as good from drugs. Hygienic treatment is worth more to them than the most skilfully planned prescription. Small doses of arsenic are often of service, and other drugs may be required for the treatment of special symptoms, especially of those which react unfavourably on the neurasthenia. An acid and bitter mixture may help to stimulate the appetite; an aperient is generally required in the early days of treatment, aloes being one of the most useful, and belladonna being of great value when there is any spasm; and iron must be given when there is anæmia. Strychnine should generally be avoided, because it tends to increase the nervous excitability, which is already too pronounced.

In previous lectures I have discussed in detail the treatment of the gastric and intestinal symptoms of neurasthenia, and the special treatment of the headache I must also reserve for another occasion. Insomnia is such a common symptom of neurasthenia and aggravates the nervous exhaustion to such an extent that a few words with regard to its treatment are necessary here. Simple measures, such as a wet pack or a warm bath, or a glass of hot milk taken in bed are frequently sufficient. If these fail, bromide is the drug which should be tried first, fifteen to thirty grains may be given in peppermint water. The latter may indeed be sufficient by itself in some cases. Stronger hypnotics should be avoided as much as possible, and opium and its derivatives should on no account be given.

Our duty is only half done when our efforts have enabled the patient to return to his ordinary occupation. We must then point out to him how he is to avoid a return of symptoms, for it is certain that a relapse will occur if he goes back to work under the old conditions. Four weeks complete holiday every year, one whole day and one half day holiday each week, and an adequate time for meals and sleep each day are the minimal requirements for every brain-worker. For many people a four weeks' holiday is insufficient; it is certainly insufficient if the weekly day and half day cannot be taken, as is too often the case with medical men. Anybody who has been forced to take a prolonged rest for neurasthenia will realise that the pecuniary loss which he has to bear in order to obtain an adequate daily rest and an adequate annual holiday is more than compensated for by the knowledge that he is thereby saving himself from the risk of another break-down.

An X-ray Pelvimeter.

By EDWARD W. H. SHENTON.

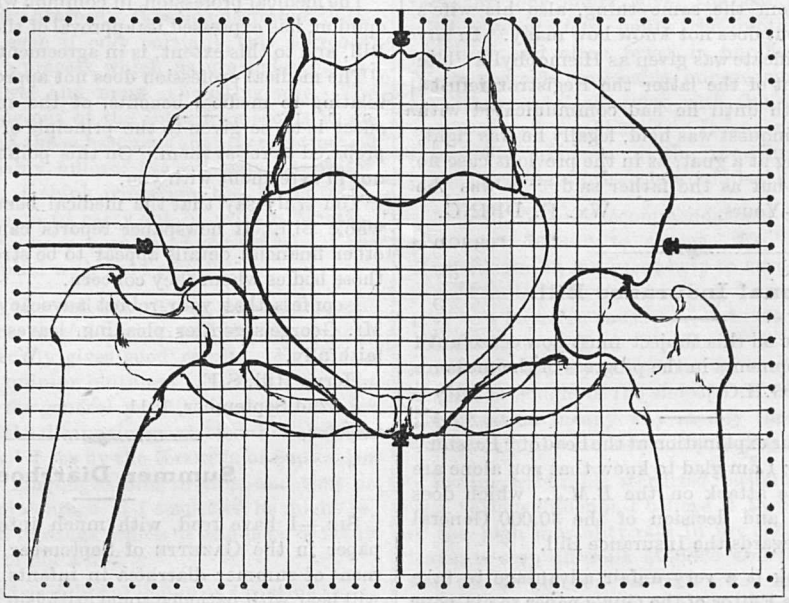
In recent conversation with Mr. Bellingham Smith I learnt the real need of accurate pelvimetry in the practice of midwifery. Having read an article in some French medical paper on X-ray pelvimetry about ten years ago, and, utilizing the knowledge thereby gained, I attempted the construction of the instrument here described. I do not wish to claim the idea, nor do I think it desirable to wait for clinical examples of its applicability before detailing the simple principles which underlie this method of measuring pelvic diameters.

The rapid divergence of the X-rays is the cause of much distortion in radiograms, hence the impossibility of making actual or relative measurements.

This frame must have a scale marked upon its sides—in the diagram it will be seen that "small X-ray opaque bodies" have been placed at one centimetre apart. The smaller the scale the more accurate the result.

A radiogram of pelvis and frame is now taken, and on this point much might be said, but for the present let it suffice that the limits of the diameter must be visible and as far as possible the plate should be kept parallel with the frame. I find the tilting top of my couch indispensable in this connection.

In the resulting negative a distorted pelvis enclosed by a distorted frame is seen and the next operation is to rule lines from opposite points, *i.e.*, to connect corresponding dots until the whole cavity of the pelvis is enclosed in a distorted chess board. Each side of each of the small mis-shapen squares has, however, the exact value of one centimetre, and by counting the number along the particular diameter required a measurement is



If it were possible to photograph a scale in the exact position of the diameter required, the matter would be an easy one, as wherever the bone was enlarged the scale would be proportionately elongated. The impossibility of getting such a scale into such a position makes this idea impracticable, but the difficulty is got over in a charmingly simple way. Suppose a right-angled frame composed of some semi X-ray transparent substance (wood, vulcanite, aluminium, etc.) to enclose the pelvis and to be so adjusted by the aid of external bony points as to be upon the same plane as the internal diameter required. The adjustment of the frame constitutes the only possibility of error, and it is of importance that the external bony points be accurately located and the instrument rigidly fixed.

obtained. In the case of a dried pelvis of which I append a diagram, these measurements proved to be accurate; it is difficult to see how they could avoid being so.

The diagram has been made from a radiogram taken of frame and pelvis, the frame being adjusted to correspond with the inlet of the pelvis.

Several little technical difficulties have to be got over, such as making the frame adjustable to varying sized patients and insuring its rigidity, and until these are disposed of, the instrument will not be upon the market. Mr. Donnithorne, of Messrs. Harry Cox & Co., is giving me every facility for working out the mechanical problems, and as soon as any degree of finalty in design is approached, I hope, through the Editor's courtesy, to be allowed to report progress.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

Haemophylia.

DEAR SIR,—I was much interested in a report of an inquest held on a child who died recently in Guy's of hæmophylia. In the account I read the child was described as "it." I take it "it" was a male from the statement made by the H.-S. that only boys had it. I have often doubted this, but recently a case came under my care that strengthens this opinion. This was a boy who fell from a gate, bit his lower lip, and eventually died. In this family it is only the males who are affected, the girls are fine healthy specimens of young women. The father tells me he has lost three boys, and his wife's sister five boys from the same thing, also his wife's mother lost boys but does not know how many. In my case the death certificate was given as Hæmophylia; bite on lip. On account of the latter the Registrar refused to register the death until he had communicated with the Coroner. No inquest was held, legally he was right, but it was straining at a gnat, as in the previous case no demur was made, but as the father said, "it was the bite that did it."—Yours, WM. E. DRING.

National Insurance Bill.

[Correspondence on this subject must now cease until any further developments in the progress of the measure take place.—ED., G.H.G.]

DEAR SIR,—Your explanation at the head of "Passim" is most necessary; I am glad to know that you alone are responsible for the attack on the *B.M.J.*, which does voice the feeling and decision of the 30,000 General Practitioners as regards the Insurance Bill.

Do you not think it a very unfair advantage to take of your position as Editor of the Guy's paper to air your Socialistic views as to the Insurance Bill, and the state of the practice of doctors in general, when you are only just qualified and have not left the cradle of your Hospital to battle with the world of medicine on your own? I have over twenty years' practice at my back, and I endorse every word the *B.M.J.* has said. The Bill is bad; the Profession is overcrowded; we are badly paid and do not get a fair percentage of what we earn; the medical profession as a whole is in a bad way, and not a good opening for young men without private means.

And a large number of the men that enter the Profession are no good when we have got them and never will be.

I think, Sir, if you were to confine your Editorial functions to Hospital matters, and publishing the utterances of your Staff, and leave medical politics to those who are feeling it, you would be wiser, and if you do join the happy band of G.P.'s, then no doubt you will soon change your present views. But perhaps you are going to take office in that field, safe from all trials and troubles of practice, the M.O.H., from which lofty pinnacle you can dispense words of wisdom to the G.P.

Yours truly, A. Z. C. CRESSY,
Wallington.

[This letter is dealt with in Passim.—ED., G.H.G.]

SIR,—So far as I have been able to follow your remarks on the National Insurance Bill, you appear to confuse the principle of the Bill with the method suggested for giving effect to that principle.

Because one agrees with a principle it does not necessarily follow that one must also agree with the method proposed for putting that principle into action.

The medical profession, in common with all intelligent opinion, has expressed its approval of the principle of the Bill, and to this extent, is in agreement with you.

The medical profession does not approve of the details, relating to medical benefits, of the method by which effect is to be given to the principle of this Bill, and is prepared to resist them. On this point the profession is not in agreement with you.

You truly say that the medical benefits are not the whole Bill. If newspaper reports can be trusted, the other financial details appear to be strongly opposed by those bodies whom they concern.

I confess that your robust advocacy of the Bill, like Mr. George's gentler pleading, leaves me cold.—Yours faithfully, W. I. LINDSAY.

Herne Hill, S.E.
22nd September, 1911.

Summer Diarrhoea.

SIR,—I have read, with much interest, Dr. Mann's paper in the GAZETTE of September 2nd, on the treatment of summer diarrhœa in infants, and I am sure he will bear with patience some criticism of his views.

Since Dr. Mann's opportunities of seeing and treating cases of this disease are greater than mine, his statements have more value than my criticism.

It would therefore be ungracious to say that I entirely disagree with much that he advises, but I should certainly follow many of his recommendations with trepidation.

When I first left the sheltering portals of Guy's, I treated summer diarrhœa very much on the lines that Dr. Mann suggests, viz., omission of the preliminary purge, free administration of bismuth and milk feeding; the milk was modified in various ways but was not citrated. In my hands, the consequences of this treatment were disastrous, an undue proportion of the babies died.

Gradually, as the result of hints gathered here and there—some from general practitioners, some from con-

sultants, and some perhaps from trials I had made myself—I managed to evolve a plan of treatment, not by any means ideal or new, which gives fairly good results. At least I do not now lose such a high proportion of babies as I used to.

Dr. Mann tells us never to give a preliminary purge; for the reasons which he mentions I used to adhere strictly to this principle till I was induced to depart from it by observing the obstinacy with which diarrhœa continued in spite of treatment. I now only omit the purge in those cases where the infant is collapsed or very much prostrated, and in these it is postponed till the infant seems better able to bear it. Usually a teaspoonful of castor oil is given once only or half a teaspoonful when the infant is very young or very prostrated.

The intestine may be considered the breeding-ground of the infecting organism, and the intestinal contents are probably loaded with its toxic products, some of which are no doubt absorbed. It seems desirable, therefore, to evacuate, even if only partially, this source of septic absorption, a process which nature endeavours to carry out in a slower and more exhausting way. The preliminary flushing-out of the intestines seems to me to be beneficial, and the subsequent slightly constipating effect which probably follows the oil may be useful. Unlike Dr. Mann, I think irrigation the better plan, but it is troublesome to carry out in private practice. Irrigation seems to have been tried extensively at the West London Hospital with good results.

For red buttocks the well-known treatment of frequent changing of diapers, careful drying, and the use of some simple unguent usually gives good results. Dr. Mann speaks highly of a quinine ointment. At first I thought he did not realize the general practitioner's passion for a prescription, or the disappointment that his skeleton recipe would cause. I see by the GAZETTE of September 16th, that I have misjudged him in this, and that he was not trying to discourage, as I suspected he might be, that profound faith in drugs which is the hope of many and the confusion of not a few.

One doubts the advisability of opium as a routine treatment since the intestinal contents contain such virulent poisons, surely it is not wise to encourage their retention unless or until their toxic powers has been much reduced. Personally, I reserve opium for those cases in which severe pain, or intractable insomnia, is present, and I find the plan answers well.

Bismuth in any combination has proved so disappointing with me, that I look upon it as useless in acute cases, and now only give it occasionally in the later stages of convalescence. Nor have I found bismuth of any great service in vomiting. Creosote sounds more promising. My experience has convinced me that the so-called antiseptic treatment is the most satisfactory.

Like Dr. Mann, I have not given calomel, and for the same reason. His explanation of the varying action of calomel is ingenious, but one doubts the occurrence of the subtle chemical changes he suggests. It is enough to know that certain individuals have a greater susceptibility than others to mercury in any form, and we may expect this to be more pronounced with such an active mercurial preparation as calomel. Recently I gave a robust male adult a dose of four grains of calomel in tablets containing one grain of the drug in each. The dose scarcely affected him. About the same time I gave another male adult, also robust, a dose of one grain of calomel in tablet form from the same sample. The patient jeered at the size of the tablet and offered to take half a dozen like it. Next day he spoke of my "concentrated extract of damnation," and withdrew his offer of the previous evening, from which I gathered that one grain of calomel acted on him in no undecisive way.

For my part, I have found that sodium salicylate (a hint from Sir J. Goodhart) in 2 to 5 grain doses, combined with syrup and a simple carminative, given every three or four hours, gives the best results. Usually within twenty-four hours the motions are less foul smelling, and often fewer in number. In forty-eight hours there is noticeable improvement in the child's condition, and I persevere with the drug till convalescence is well established. It appears also to have a favourable influence on the vomiting. Perhaps some other intestinal antiseptic would be equally effective.

It is Dr. Mann's recommendations for feeding that I find most difficult to accept. Few will dispute that decalcified milk is a great help in curd indigestion. But is curd indigestion the cause of summer diarrhœa? It may be a factor in causation, but it is not the most important factor. Does Dr. Mann think that citration, however accurately carried out, can destroy the organisms in milk as bought in the shops? Or, if this be sterilized, can citration in any way modify those toxins in milk which seem to be unaltered by boiling?

Having tried milk, sterilized, pasteurized, and diluted with various diluents, I believe it to be the chief cause of the high mortality rate in my earlier cases. I have learnt to stop all milk at once and to substitute for it veal tea or chicken tea and whey in alternate feeds. The mother is told to give sterilized water and albumin water freely between the feeds.

Albumin water is probably of little account, since even babies cannot live by albumin alone, but the fluid is useful to the infant and its preparation is often a great comfort to the distracted mother. Of course, the infant is very gradually coaxed back to its normal milk diet from the earliest possible date. But if the milk supply is still untrustworthy, the substitution of some form of dried milk, or whatever artificial food is found to suit the particular infant, may be necessary for a time.

Possibly I have been fortunate or have treated too few cases, but I have not seen marasmus follow these measures.

There is one drawback to the haustus chloral infantum. After giving it regularly for some little time mothers and

nurses say that it seems to lose its effect; a larger dose is then required. For this reason I have not given it as a routine.—Yours faithfully,

Herne Hill, S.E. W. I. LINDSAY.
18th September, 1911.

Originality in Medicine.

"A genius is only a genius in that he is abnormal."

DEAR SIR,—These words in your criticism of my letter are suspiciously reminiscent of Seneca's dogmatic statement that "no great genius is ever without some tincture of madness." A few of your readers may, perhaps, be willing to accept the veracity and reaffirm the importance of such a statement, but, as Sir James Barr more justly maintains, "the opinion of Seneca will not bear analysis, as no genius is ever insane (*i.e.*, abnormal) except in the opinion of the dwarfed intellects of his contemporaries." And that, *pace tua Lombroso*, is more probably the truth.

Since reading your criticism I have come across the following words of Professor Karl Pearson's, and I should be happy if you would kindly reprint them. They are certainly interesting:—

> "Looking around impassionately from the calm atmosphere of anthropology, I fear," he says, "that there really does exist a lack of leaders of the highest intelligence, in science, in the arts, in trade, even in politics. I do seem to see a want of intelligence in the British merchant, in the British professional man, and in the British working man. I believe we have a paucity just now of the better intelligence to guide us, and of the moderate intelligence to be successfully guided. *The only account we can give of this is that we are ceasing, as a nation, to breed intelligence as we did fifty to a hundred years ago.*"

—I am, Sir, yours sincerely, UT PROSIM.

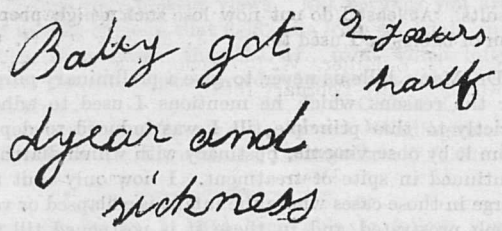
British Medical Journal.

DEAR SIR,—I gather from the *B.M.J.* of to-day that a remonstrance was addressed by you to its editors which, in my opinion, was just and opportune.

One could not read the article of which you complained without much indignation that men's minds should so come down to their conditions, and that leaders should ever think courage and duty not equal to difficult times. Keep above the crowd, sir, in your outlook, and you will do all the better for Medicine, nor do I think those whom our calling serves will do less than well for you.—Cordially yours,

DAVID A. ALEXANDER.
Sept. 23rd, 1911.

DEAR SIR,—The work of the on-coming O.P.O.'s in the front, about which so much has been written in the GAZETTE, would certainly be lessened if each patient would be kind enough to diagnose his complaint in the thoughtful way that one mother has done.



Yours, etc., FRONT SURGERY.

Appointments.

Medical School Appointments.

OCTOBER—DECEMBER, 1911.

The following appointments have been made by the House Committee upon the recommendations of the Medical Committee:—

Clinical Assistants.—Messrs. G. A. Blake, E. G. Schlesinger, H. L. James, F. G. Lloyd, A. M. Bodkin, G. Marshall.

Dressers in the Throat Department.—Messrs. C. Aldis, T. P. Cole, C. A. R. Gatley, A. H. Birks, A. J. McNair, T. B. Heaton.

Clerk in the Skin Department.—Mr. E. S. Taylor.

Medical Ward Clerks.—Messrs. P. H. Berry, L. D. Wright, R. H. Lucas (Dr. Hale White); C. H. L. Harper, M. Z. Hanafy (Dr. Pitt); E. S. Taylor, A. M. Henry, W. R. Pryn (Sir Cooper Perry); J. W. Kemp, D. W. Jones (Dr. Shaw). R. O. H. Jones, F. H. Dodd, C. S. L. Roberts, A. H. Taymour, P. Savage, J. York Moore, J. R. Barrow-Clough, A. J. Drew, H. W. Evans, H. Gould, W. K. McKay, C. G. McClymont, R. C. Matson, R. P. Ninnis, E. D. Scott, L. DuVergé, P. R. Chevreau, F. V. Bevan-Brown, F. W. Lawson, C. Lambrinudi, J. F. Venables, C. F. Pedley.

Aural Surgeon's Dressers.—Messrs. H. L. Hopkins, W. M. Langdon, D. A. Davies, M. Pern.

Obstetric Dressers.—Messrs. L. B. Stringer, M. Scott, A. Tilbury, H. J. Hoby, K. B. Clarke, T. A. Townsend (Mr. Targett); T. I. Bennett, R. D. Passey, A. L. Shearwood, H. V. Leigh, S. Wickenden, O. R. L. Wilson (Mr. G. B. Smith).

Assistant Surgeon's Dressers.—Messrs. A. C. Hancock, H. Mather (Mr. Steward); W. L. Gwyn-Davies, H. S. Groves (Mr. Fagge); D. C. Scott, F. D. Annesley, C. H. G. Penny (Mr. Rowlands); A. J. E. Smith, A. V. Moberly (Mr. Turner); A. Abdel Al, L. M. J. Menagé (Mr. Hughes).

Clerks in the Electrical Department.—Messrs. V. A. Luna, C. Warner, C. Worster Drought.

Post-mortem Clerks.—Messrs. W. Matthews, H. Webb, W. J. D. Smyth, C. Warner, H. C. Godding (October—December); A. G. H. Moore, J. M. Joly, C. H. G. Pochin, G. S. Miller, W. Robinson, J. F. G. Richards (November 16th—February 15th).

Surgical Ward Clerks.—Messrs. W. E. Tanner, S. Wilson, F. C. S. Broome, D. R. Jones, H. P. Whitworth, H. H. Elliott, C. Dean, W. D. Galloway, H. L. P. Peregrine, E. C. W. Starling, C. De W. Gibb.

The following appointments have been made by the Treasurer upon the recommendation of the Medical Council:—

House Physicians.—A. S. Roe (Dr. Hale White); H. W. Barber (Sir Cooper Perry).

House Surgeons.—R. Stout (Mr. Symonds); J. H. Edmond (Sir Alfred Fripp).

Out-Patient Officers.—G. T. Mullally, W. T. Clarke, G. R. Hind, H. T. Depree.

Assistant House Surgeons.—N. Mutch (Mr. Steward); A. J. McNair (Mr. Fagge); A. Sandison (Mr. Rowlands); N. S. Carruthers (Mr. Turner); A. Neville Cox (Mr. Hughes).

Naval and Military.

Staff Surgeon A. W. Iredell, and Surgeon G. Moir, R.N., have been appointed to the *President*, additional for Civil Hospital Course.

Captain A. C. H. Gray, R.A.M.C., has been selected for appointment as Clinical Pathologist at the Royal Infirmary, Phœnix Park, Dublin.

To be Majors: Captain H. D. Peile, I.M.S., 27th July, 1911; Captain John Matthews, R.A.M.C., 17th August, 1911. To be Lieutenants on Probation, I.M.S.: C. M. Plumptre, E. A. Penny, 29th July, 1911.

Civil.

T. E. Ashdown Carr, M.B., B.S., to be Resident Assistant Surgeon, Cheltenham Eye, Ear and Throat Hospital.

R. Denman, to be Director of the Medical and Health Department, Mauritius.

W. A. Dredge, L.D.S. Eng., to be Dental Surgeon to Metropolitan Branch of the National Association of Local Government Officers.

W. L. Hibbert, M.R.C.S., L.R.C.P., to be Assistant Resident Medical Superintendent, Lewisham Infirmary.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Quinquennium of Medicine and Surgery, 1906–1910. By J. W. Ballantyne. (William Green & Sons.) 10s. 6d.

A book which could give a concise account of the advances made in the last five years in medicine and surgery would be very cheap at 10s. 6d. But we cannot say that Dr. Ballantyne's effort has been rewarded with great success. This book is in part a dictionary which gives incomplete information about obscure processes and methods which are of no practical interest to the general practitioner; in part, it mentions the names, and in some cases the composition of recent drugs, proprietary and otherwise, usually without any details as to their action, and no references.

The alphabetical or dictionary method is altogether unsuitable for Dr. Ballantyne's purpose, and there are many too many items given. If the reader desires to get information about Kangri cancer, Karell milk-cure, karyolobism, karyolysis, karyorrhesis, Kasauli Institute, katabiotic, kataplasia, he will not seek such information in the "Quinquennium." We cannot see that in its present form the "Quinquennium" answers any very useful purpose.

Bone-Setting and the Treatment of Painful Joints. By Frank Rowes and Eliot Creasy. (James Nisbet & Co.) Price 1s.

Any books which shows an intelligent attempt on the part of the medical profession to consider the principles and value of the methods of "bone-setting," is undoubtedly valuable. The book under review, however, while certainly a step in the right direction is unfortunately but a very small step. After a brief consideration of the subject of adhesions in joints generally, the authors describe the movements suitable for the treatment of adhesions in certain joints. Diagnosis is not mentioned, pathology receives but a few words, and these inexact, and supported by the scantiest evidence, so that the value which from its title the book should have is largely lacking. Such statements as "the medical profession fully appreciates the value of early movements and massage in the treatment of acute traumatic synovitis" show an optimistic belief in the adaptability of the surgical mind, which, however, is not borne out by facts. The authors are to be complimented upon an attempt to bring the subject of "bone-setting" before the profession, but it is to be regretted that such an extremely important, interesting, and controversial matter has not received a more detailed and scientific treatment.

Biographical Reminiscences of Sir Samuel Wilks; a Memoir on the New Discoveries or New Observations made during the time he was a Teacher at Guy's Hospital. (Adlard & Son.) 3s. 6d.

This volume, which Guy's men in particular, and medical men in general, will read with pleasure, interest, and pride, deals with the rapid advances made in medicine during the period 1836–1900, and brings into notice the many and valuable contributions which have come from the Guy's School. To us, who attend, or should attend, daily in the post-mortem room, it seems well-nigh incredible that until in the year 1863, when Sir Samuel Wilks wrote his well-known paper "On the Syphilitic Affections of Internal Organs," visceral syphilis was unknown, and further, in our daily familiarity with the microscope, it is almost impossible to imagine a pathology without that instrument. Again, it is not at all generally known that Dr. Babington first described in 1829 his newly invented instrument the "laryngiscope" or "glottiscope." What impresses one most, however, in the volume, is the enormous share which Sir Samuel Wilks had in making and perfecting the numerous and divers advances in medicine, showing a life-work such as has fallen to the lot of few medical men to look back upon, and an activity which covered the whole field of medical research. It is a matter for congratulation that the present volume has been given publicity, containing as it does the record of a professional life which will go down to posterity as one of the most productive and brilliant of modern times, and of a man who ranks high in the list of great men given to the world by Guy's Hospital.

The Fifth Assistant Surgeon.

The following are the new regulations consequent on the appointment of a Fifth Assistant Surgeon:—

1. Mr. Hughes will attend in the Out-Patient Department on Tuesdays and Fridays, and the rota of the Assistant Surgeons' Dressers for Accident Duty will be revised as follows:—

Monday	Mr. Turner's Dressers.
Tuesday	Mr. Fagge's Dressers.
Wednesday	Mr. Hughes' Dressers.
Thursday	Mr. Steward's Dressers.
Friday	Mr. Rowland's Dressers.
Saturday	Mr. Turner's Dressers, first half. Mr. Rowland's Dressers, second half.

2. Mr. Hughes will also attend in the Out-Patient Department on two fixed mornings in the week at 10 a.m. for the purpose of examining and supervising the treatment of the Casualty Patients in the Back Surgery.

3. In the Wards Mr. Hughes will have four surgical beds in Astley Cooper Ward and two in Cornelius Ward, together with two female beds in Charity Ward, taken from the four beds of the Fourth Assistant Surgeon.

4. The correspondence of the other Assistant Surgeons with the Taking-in Surgeons will not be disturbed, but the Fifth Assistant Surgeon will act as Assistant Surgeon to the Assistant Surgeon who is doing a Full Surgeon's work, whenever the latter is away for his annual holiday.

5. The Fifth Assistant Surgeon shares with the other Assistant Surgeons the duty of attending at the request of a Physician or Assistant Physician in the Medical or Clinical Wards.

6. As an Assistant Surgeon working in the Clinical Wards is not of necessity dependent on his association with any particular Physician, and as it will be of advantage to both Physicians and Surgeons that they should have opportunities of working with different Members of the Staff, it has been arranged that the Fifth Assistant Surgeon should take his share of the surgical work in the Clinical Wards, the Fifth Assistant Surgeon going into Clinical for six weeks at a time in rotation in order of seniority. Under this arrangement Mr. Hughes will come on duty by rotation in Clinical Ward from April 1st to May 15th, 1912.

7. The House-Surgeon of the Fifth Assistant Surgeon will take his share of Night Duty, and Mr. Hughes' House-Surgeon will begin the rota from Thursday, October 5th, being followed by Mr. Steward's House-Surgeon, and so on in order of seniority.

8. The Fifth Assistant Surgeon will be required to deliver Clinical Lectures, and the Medical Committee has suggested that this opportunity should be taken for revising the existing arrangements for Clinical Lectures generally.

Births.

DAVIES.—On September 10th, the wife of Langford George Davies, M.A., M.B., B.C. Cantab, of Broad Clyst, Devon, of a son.

FORSYTH.—On the 16th September, at 74, Wimpole Street, W., the wife of David Forsyth, M.D., D.Sc., F.R.C.P., of a son.

HANDLEY.—On September 23rd, at 12, New Cavendish Street, W., to Mr. and Mrs. Sampson Handley, a son.

LEEMING.—On the 21st September, 1911, at Cilgwyn, Colwyn, North Wales, the wife of A. Norman Leeming, M.B., B.S. Lond., of a son.

Marriage.

COLLINS—HATCHARD SMITH. — On September 20th, at Christ Church, Epsom, by the Rev. Canon Hunter, assisted by the Rev. Bainbridge Bell and the Rev. E. Goodchild, Michael Abdy Collins, B.S., M.D. (Lond.), eldest son of Dr. Collins, of Saxmundham, to Sybil, youngest daughter of J. Hatchard Smith, F.R.I.B.A., of Charlwood, Epsom.

Death.

PAUL.—At Guy's Hospital, London, on the 19th inst. (Nurse), Louisa Ashton, in her 27th year, daughter of the late Andrew Paul, Writer, Glasgow.

Lectures* for Sessions 1911—1912.

WINTER SESSION. OCTOBER—MARCH.

†	LECTURERS.		DAYS.					
Anatomy (1st & 2nd)	Mr. Steward and Mr. Fagge	9	—	Tu	W	Th	—	—
Microscopical Pathology (3rd)	Dr. Boycott, Dr. Eyre & Mr. Goodhart	2	—	—	W	Th(10)	—	—
Pathological Classes (3rd & 4th)	Dr. Fawcett and Mr. Rowlands	—	—	W(11.30)		Th(9.15)		Sat(11)
Bacteriology (Jan. to Mar.) (4th)	Dr. Eyre and Mr. Goodhart	4	—	Tu	—	—	—	—
Practical Obstetrics (3rd & 4th)	Mr. Chapple (Oct. and Jan.)	11.30	—	—	—	Th	—	—
Chemical Physiology (Jan.) (2nd)	Dr. Pembrey, Mr. Ryffel, Mr. Kennaway, and Mr. Gardiner.	11	—	—	—	—	Fri	Sat
Chemistry (1st and pre. sci.)	Dr. Wade	12.15	—	Tu	—	Th	—	—
Practical Chemistry	Dr. Wade, Mr. Ball and Mr. Merriman	10-12	—	Tu	—	Th	—	—
Advanced Practical Physiology (3rd)	Dr. Pembrey, Mr. Ryffel, Mr. Kennaway, and Mr. Gardiner.	11	M	—	W	—	—	—
Practical Medicine (3rd)	Dr. Rippmann and Mr. Hunt	—						
Experimental Physics (pre. sci.)	Dr. Fison	12	M	Tu (3)	—	—	—	—
Chemical Physics (1st)	Dr. Fison and Mr. Abram	2	M	Tu	—	—	—	—
Practical Surgery (3rd)	Mr. Townrow and Mr. Bromley	12.30	—	Tu	—	—	Fri	—
Physiology (2nd)	Dr. Pembrey (Oct.-Dec.)	10	M	—	W	—	—	Sat
Clinical Medicine (3rd & 4th)	The Physicians	4	—	—	—	Th	—	—
Surgery (3rd)	Mr. Symonds, Mr. Lane, Mr. Dunn and Sir A fred Fripp.	9.30	M	—	—	—	Fri	—
Clinical Surgery (3rd & 4th)	The Surgeons	1.30	—	—	W	—	—	—
Elementary Biology (1st)	Mr. Assheton, Mr. Reed, and Mr. Saner	10.45	—	—	W	Th(2)	Fri	—
Morbid Anatomy (3rd & 4th)	Dr. Fawcett, Dr. French and Dr. Hertz	2	M	Tu	W	Th	Fri	Sat(12)
Medicine (3rd)	Dr. Hale White, Dr. Pitt, Sir C. Perry, and Dr. Shaw.	4	—	—	W (3)	—	Fri	—
Ophthalmic Surgery (Jan.) (4th)	Mr. Eason	4	—	—	W	—	—	—
Public Health (Jan.) (4th)	Dr. King Brown	4	M	—	—	—	Fri	—
Anæsthetics	Mr. Rowell (Dec.)	—						
Dental Surgery and Pathology	Mr. Wynne Rouw	4	—	—	—	Th	—	—
Metallurgy	Dr. Wade	4	M	—	—	—	—	—
Practical Dental Metallurgy	Mr. Pearce (Jan.)	2.30	—	Tu	—	—	—	—
Dental Anatomy & Physiology	Mr. Hopson	4.30	—	—	W	—	—	—
Dental Mechanics	Mr. Lewin Payne (Oct.–Dec.)	4	—	Tu	—	—	—	—
Practical Dental Mechanics	Mr. Pillin (Jan.)	2.30	—	—	—	—	Fri	—
Pathology	Dr. Boycott	12.30	—	—	—	Th	Fri	—

SUMMER SESSION. MAY—JULY.

†	LECTURERS.		DAYS.					
Medical Jurisprudence (3rd & 4th)	Mr. Ryffel	10	—	—	W	—	Fri	—
Midwifery (3rd)	Mr. Targett and Mr. Bellingham Smith	9	—	Tu	W	Th	—	—
Diseases of Women	Mr. Targett and Mr. Bellingham Smith	9	—	—	—	—	Fri	—
Mental Diseases (3rd)	Dr. Craig	9.30	M	—	—	—	—	—
Bacteriology (April to June) (4th)	Dr. Eyre and Mr. Goodhart	4	—	—	W	Th	—	—
Practical Obstetrics (3rd)	Mr. Chapple	11.30	—	—	—	Th	—	—
Biology and Botany (pre. sci.)	Mr. Assheton, Mr. Reed, and Mr. Saner	2	—	—	W	—	Fri	—
Physiology (2nd)	Dr. Pembrey	9.30	M	—	W	—	—	Sat
Histology (1st)	Dr. Pembrey, Mr. Ryffel, Mr. Kennaway, and Mr. Gardiner	10.30	M	—	W	—	—	Sat
Practical Surgery (3rd)	Mr. Townrow and Mr. Bromley	12.30	—	Tu	—	—	Fri	—
Practical Medicine (3rd)	Dr. Rippmann and Mr. Hunt	12	—	—	—	Th	—	—
Experimental Physics (pre. sci.)	Dr. Fison and Mr. Abram	12	M	Tu (2)	—	—	—	—
Clinical Medicine (3rd & 4th)	The Assistant Physicians	1.30	—	—	W	—	—	—
Clinical Surgery (3rd & 4th)	The Assistant Surgeons	1.15	—	—	—	—	Fri	—
Morbid Anatomy (3rd & 4th)	Dr. Fawcett, Dr. French and Dr. Hertz	2	M	Tu	W	Th	Fri	Sat(12)
Materia Medica (2nd)	Dr. Beddard	4	M	Tu	—	—	Fri	—
Anæsthetics	Mr. Rowell (June)	—						
Operative Dental Surgery	Mr. Parfitt	12	—	—	—	—	—	Sat
Chemistry	Dr. Wade	9.30	—	Tu	—	Th	—	—
Practical Chemistry	Dr. Wade, Mr. Ball and Mr. Merriman	10.30	—	Tu	—	Th	—	—
Exp. Pathology (Gordon Lectures)		12.30	—	—	—	—	Fri	—

* No effort has been made to include the many demonstrations or practical work.

† The numbers in this column refer to the years in which this course should be attended.

Guy's Hospital Clubs' Union

THE FORMATION OF THE CLUBS' UNION, by the amalgamation of the various constituent institutions, took place in the summer of 1891. The objects of the amalgamation are to further the interests of the clubs and societies existing at the hospital by their mutual support, and to simplify the collection of subscriptions. By the payment of an annual subscription (see Clubs' Union Blue Book, . 13) to the Clubs' Union, any student of the hospital can obtain the privilege of membership of the constituent institutions.

THE GROUND OF THE CLUBS' UNION, which is under the control of the council, is situated close to Honor Oak Park Station, on the London, Brighton and South Coast Railway, and to the Crofton Park Station on the South Eastern and Chatham Railway. It is nine acres in extent, and is the headquarters of the Guy's Football, Cricket, Athletic and Lawn Tennis Clubs. Return tickets at single fare are issued by the Brighton Railway Company. Under such restrictions as are found necessary by the committees of the several clubs, and are approved by the council of the Clubs' Union, every member of the Union has opportunities of practising and taking part in matches, and in the various sports and games. There is a large pavilion upon the ground, with dressing and lavatory accommodation. Refreshments can be obtained by members of the Union according to the tariff of the Students' Club.

CONSTITUENT INSTITUTIONS.

THE CRICKET CLUB.—President: Sir Alfred Fripp, K.C.V.O., C.B., M.S.: Captain: F. C. Hunôt; Hon. Sec. and Treasurer: G. W. M. Andrew.

Matches are played throughout the summer session, fixtures being made for three XI.'s. There are both a Senior and Junior Inter-Hospital Cup. Guy's has won the Senior Cup sixteen times since its inauguration in 1882. The Junior Cup has been in existence five seasons. Guy's has won it three times.

Practice matches are held early in May, and all freshmen should put their names on the list. Blues are given to the members of the Cup team, and Half-Blues to some members of the 2nd XI.

The Annual General Meeting will be held in March.

THE FOOTBALL CLUBS.—President: Frederick Taylor, Esq., M.D. Rugby — Captain: C. H. Medlock; Hon. Sec.: W. S. Stranack; Captain 2nd XV.: H. Millett; Captain 3rd XV.: E. A. Leviseur; Captain 4th XV.: H. Thompson; and a committee of five, one representing each year. Association—Captain 1st XI.: K. J. T. Keer; Hon. Sec.: J. Kyle; Captain 2nd XI.: E. L. Jones; Captain 3rd XI.: W. H. Sutton; and a committee of five, one representing each year.

The Rugby Football Club has now been in existence for over sixty years. Very little is known of its early history. Among the many well-known players who at one time or another have played for Guy's may be mentioned the following International footballers:—A. W. Pearson, W. W. Pinching, A. H. Jackson, L. Stokes (Captain 1877–8), A. S. Taylor, W. G. Mitchell, A. Allport, H. W. Dudgeon, A. Alcock, H. Lee, H. Archer, G. R. Hind (England); H. H. Jordan, E. Morgan (Wales); R. Evans (Scotland); F. O. Stokes (Ireland).

The Inter-Hospital Challenge Cup was instituted in 1874, and Guy's had the honour of being the first holders. Since then Guy's has held the Cup fourteen times, St. Thomas's ten times, London five times, St. George's three times, St. Bartholomew's twice, and Middlesex and St. Mary's once each. In 1891, Guy's, Middlesex, and St. Thomas's were left in, the ties not being played out.

Last season Guy's retained the Cup for the third year running. In the first round we beat University by 32 points to nil; in the semi-final, Bart's by 6 points to nil; thus qualifying to meet London, whom we beat in the final by 8 points to nil. Our club record was also good.

The 2nd XV. again won the Cup, and with the 3rd XV. had a good season.

It has been decided to try to run a 4th XV. this year; a good fixture card has been arranged. Trial games will be played in the first week of October. For the benefit of freshmen in particular, we may state that lists will be put up in the Smoke-room, on which intending players should write their names as soon as possible. The officers of the clubs will at all times be very glad to give any information in their power.

The Association Football Club was founded in 1882, and a high measure of success has rewarded its efforts from its earliest days. Four years later (1886) the Inter-Hospital Challenge Cup (Senior) came into existence, and of the twenty-four occasions it has been competed for, Guy's has "been on top" no fewer than twelve times, St. Bart.'s being our nearest opponents with five wins. In its very palmiest days, Guy's also won the Surrey Senior Cup, viz., in 1887 and 1889. The Cup last season was lost to St. Bart's after five years possession. In 1898 the Inter-Hospital Junior "Soccer" Cup was competed for for the first time, and of the eleven finals we have won five. Last season the 2nd "Soccer" Cup was lost to St. Thomas's.

Early in October trial games will be arranged to take place at Honor Oak, more especially for the benefit of "freshmen," and it is to be hoped that no freshman interested in Hospital "Soccer" will hesitate, *for any reason whatsoever*, to avail himself of this golden opportunity of proving his worth on the field, for it is largely on the result of these games that his subsequent inclusion in the team depends. Notices of such trial games will be posted in the Smoking-room of the College. The club has entered for both the Surrey Senior and Junior Cups.

The Lawn Tennis Club.—President: W. Arbuthnot Lane, Esq., M.S.; Vice-President: J. Fawcett, Esq., M. D.; Captain: A. S. Roe; Hon. Sec., R. Curle, and a committee of six students.

The Lawn Tennis Club was founded in 1888. Two teams are run during the season, which starts on May 1st and finishes at the end of July. There are two Inter-Hospital Cups. This year we won both the Senior and the Junior Cups. A trial game is held early in the season, and tournament singles are played for the Arbuthnot Lane Cup during the season.

The Athletic Club.—President: J. Fawcett, Esq., M.D., F.R.C.P. Hon. Secs. and Treasurers: A. B. Danby and H. W. Evans, and a committee of eleven. The annual summer meeting is held in June, when the Lucas Challenge Cup is competed for, at the Clubs' Union ground. The team which represents Guy's in the Inter-Hospital Sports is chosen on the results of our sports. Blues and Half-Blues are awarded at the discretion of the committee. There is also a contest between the United Hospitals and Dublin University when possible.

In connection with the Athletic Club there is a Cross-Country Club, which has runs every Saturday, and races with the leading London clubs, and the Universities of Oxford, Cambridge and Dublin. Half-Blues are awarded in the Inter-Hospital Cross-Country race. Full particulars and notices of all club matters are to be found on the colonnade notice-board and in the smoke-room.

The Golfing Society.—President: G. Newton Pitt, M.D. Vice-Presidents: H. C. Cameron, M.B., H. L. Eason, M.D., M.S., C. H. Fagge, M.S., F.R.C.S., J. Fawcett, M.D., A. W. Ormond, F.R.C.S., F. J. Steward, M.S., F.R.C.S., R. Davies-Colley, M.C., F.R.C.S., and E. C. Hughes, M.C., F.R.C.S. Committee: R. Creasy, R. Curle, F. Kahlenberg, L. Bromley, J. G. Saner, J. M. Jarvie. Hon. Secretary and Treasurer: F. D. Saner.

This society was formed in May, 1908, for the purpose of promoting Inter-Hospital Golf, and also to provide local interest by means of competitions, matches, etc. The society is affiliated to the Clubs' Union, and therefore all members of the Union are members of the society. Matches are arranged with other hospitals and clubs. A Monthly Medal Handicap Competition is held on the first Wednesday of each month. Cards and information can be obtained from the Secretary or any of the Committee.

An arrangement has been made by which members of the above society may play on five days in the week—viz., Monday to Friday—at the Ilford Golf Club, on payment of an annual subscription of £1 1s., without entrance fee Such members may play on Saturdays, Sundays and Bank Holidays at the rate of 2s. 6d. a day.

We are indebted to the Committee of the West Essex Golf Club for the following arrangements:—Members of the Guy's Hospital Golfing Society may become five-day members of the West Essex Golf Club on payment of an annual subscription of two guineas, without entrance fee. Such members may play on Saturdays and Sundays on payment of a daily green fee of 2s. 6d. Members of the Society may play at West Essex any day, except Sunday, at a green fee of 2s. 6d. a day, On Sundays the green fee is 5s., unless accompanied by a member of the West Essex Club, when it remains at 2s. 6d. An arrangement has also been made with The Foxgrove Club, Beckenham, by which members of the society may play on any day, by payment of a green fee of 2s. 6d.

The Pupils' Physical Society.—Hon. President: Sir Samuel Wilks, Bart., M.D., LL.D., F.R.S. Hon. Vice-Presidents: Sir James Goodhart, Bart., M.D., LL.D.; Frederick Taylor, M.D.; G. H. Savage, M.D. Hon. Secretaries: C. H. Rippmann, M.D.; G. W. Goodhart, M.B., B.Ch.

This flourishing society was founded in 1830, on the plan of the old Physical Society, which existed during the latter part of the eighteenth century at Guy's Hospital.

At the Pupils' Physical Society, which meets each fortnight on alternate Wednesday and Saturday evenings, a paper on some subject, not necessarily of medical interest, may be read by any member, to be followed by a discussion. "Clinical" and "Pathological" Evenings are devoted to the exhibition and discussion of interesting cases or specimens which may be shown by any member. Members are reminded that in connection with the society the following prizes are offered for competition: The Treasurer's Prize of £5 is given annually; the subject of the Essay for this year is "Head Injuries." The society offers a prize of £10 for the best paper read during the session; a prize of £5 to the member who distinguishes himself most in the discussions; and a prize of £5 to the member who exhibits the best specimens of scientific interest during the session.

Hockey Club.—President: F. J. Steward, Esq., M.S., F.R.C.S. Vice-Presidents: A. W. Ormond, Esq., F.R.C.S., and C. H. Fagge, Esq., M.S., F.R.C.S. Captain: L. Bromley. Vice-Captain: F. H. Kahlenberg. Hon. Sec and Treasurer: O. G. Morgan.

For the fifth time in succession, Guy's have won the Inter-hospital Hockey Tournament. This year, however, the final against St. Bart.'s Hospital proved to be a most thrilling game, in which, in spite of our opponents' great defensive strength, we were victorious by two goals to nil.

The General Meeting has been provisionally arranged for October 4th, and there will be two trial games early in that month. It is earnestly hoped that all freshmen and others who desire to play will put their names down on the list in the Smoking Room.

All communications should be addressed to L. Bromley, O. Morgan, or R. M. Matson.

THE DENTAL SOCIETY.—President: J. Lewin-Payne, Esq. Hon. Secretary and Treasurer: W. S. Stranack.

The object of this Society, which was founded in 1894, is the promotion of interest in Dental subjects, and the discussion of Dental topics. Papers are read before the Society each month, and a prize (value £5) is awarded for the best paper read before the Society during the session. Casual communications are invited at all meetings, and a prize (value £1) is awarded at the end of the session for the best set produced.

One meeting during the session is set apart for the examination and discussion of cases of special interest, the patients being brought up for examination.

The meetings are held every month during the winter session in Class Room No. 2 in the Medical School Buildings. The meetings take place at 4 p.m. on the second Friday in the month, and tea is served before the meetings for members attending the meetings. New men are strongly urged to attend and take part in these meetings, which, in the past, have proved instructive as well as interesting.

THE DEBATING SOCIETY.—President: L. E. Shaw, M.D. Vice-Presidents: J. Fawcett, M.D., E. I. Spriggs, M.D., A. W. Ormond, F.R.C.S., M. S. Pembrey, M.D., A. R. Thompson, F.R.C.S., T. B. Layton, F.R.C.S. Hon. Secretaries: A. Sandison, T. B. Heaton. A committee of the Secretaries and six students.

Members of the Clubs' Union, junior as well as senior, are specially invited, in their own interests, to attend as many as possible of the meetings of this society.

The endeavour has been made to choose subjects within the scope of the limited interests of the medical student, and it is hoped that all will try to be present who are not too blasé to listen to the views of others, or too slack to give others the benefit of their own.

The list of debates will be published in the GAZETTE; anyone willing to take part is particularly requested to communicate with the Secretaries.

THE GUY'S HOSPITAL REPORTS.—Edited by F. J. Steward, M.S., and Herbert French, M.A., M.D.

The Reports are published annually, and each subscriber to the Clubs' Union is entitled to a copy, which he may obtain in the Wills Library from the Librarian. Each volume contains papers by members of the Staff of the Hospital and Medical School upon original work done in the Hospital during the preceding year; it also contains a list of the gentlemen who have been educated at Guy's Hospital, with the appointments they have held during the year, the examinations they have passed, and the prizes and honours they have won. The first volume appeared in 1836; copies of the earlier volumes can be obtained from the Editors. The value of this annual publication is obvious, and every Guy's man is proud of the original papers of its Staff, from those of Addison, Bright, and Hodgkin, to those of the present day.

THE STUDENTS' CLUB.—Officers till 1912 (March). President: W. Hale White, M.D.; Treasurer: John Fawcett, M.D.; Hon. Secretary: T. B. Layton, M.S.; Hon. Assistant Secretary: C. H. Rippmann, M.D.; and a committee of eight.

The above named manage the affairs of the Club, a full account of which will be found in the Clubs' Union Blue Book.

GUY'S HOSPITAL CHORAL SOCIETY.—The Choral Society will begin their rehearsals for the Winter Season early in October. The practices are held every Friday in the Committee Room next to the Medical School Office at 5 and at 8 p.m. Notices are posted in the screens opposite Astley Cooper door. All freshmen who have voices are invited to join, particularly those who are just starting their studies in the dissecting room or chemistry laboritories. All particulars may be obtained from the secretary, H. N. Eccles.

BOXING, FENCING AND GYMNASTIC CLUB.—The Pavy Gymnasium is situated in the Students' Club, and is open to members of the Clubs' Union at all times.

Throughout the winter a class is held once a week in each of the above-named sports, and is attended in each case by a thoroughly competent instructor.

It is sincerely hoped by the committee that all men who are interested in these sports, as well as any others who would like to become so, will make a point of attending the Annual General Meeting and making themselves known to the Secretary or to one of the Committee.

Towards the end of last season an excellent wrestling mat was acquired by the club, and it is proposed to endeavour to obtain the services of an instructor in wrestling if sufficient support is given by members interested in that sport. Members who wish to take up wrestling should attend the General Meeting, and make their wishes known to the Secretary.

The Sciences.

Anatomy and the Dissecting Room.

The primary object of dissecting is to learn anatomy. By seeing the structures lying in their proper relations one to another a mental picture is obtained which cannot be had by reading or looking at pictures; by cleaning these structures and tracing them from above downwards their course is impressed on the mind; and by removing each muscle from its attachment these facts are learnt which have been taken for granted when first reading the bone.

In addition dissecting trains the fingers and develops the sense of touch, and that delicate muscle sense which is so necessary to aid the eye in carrying out a delicate manipulation.

The basis of anatomical knowledge is a thorough acquaintance with the bones. These can only be learnt by handling the bone and making out each point on it as the description in the book is being read. Hence it is absolutely essential to buy a half skeleton and a disarticulated skull. (These may be had from Hancock, the dissecting-room porter, who will also supply apron and sleeves—price 2s. 6d.—and cases of instruments).

The man who sits in an easy chair with an open Gray upon his knees and no bones by his side is simply wasting his time.

BOOKS.

The student must have two books of anatomy, the one to read it systematically by starting with each muscle, nerve, or other structure, the other to read it typographically as each structure is exposed in the course of dissection.

The book for the latter is Cunningham's Practical Anatomy (2 vols., 10s. 6d. each); it should be taken into the room and read before, during, and after each day's work.

The best book for the former is Gray's Anatomy. The description of the bones in this text-book is unrivalled, and this alone would make it the most useful for the ordinary man. Those reading for higher examinations might also get Quain's Anatomy, of which the eleventh edition is now appearing in parts. These will also need at some period a book on Embryology. The two best are Keith's book, and the first volume of Quain. Both should be read, but if the student only wants to have one he should get the former.

HOW TO BEGIN WORK.

The following rules will help:—

1. Bring up an old coat, and procure an apron and sleeves. These keep you clean. Men are sometimes seen dissecting in their everyday coat, or in their shirt-sleeves without rolling them up. The cuffs and arms then get sodden in fat and body fluid, which substances are transferred in the evening to the dinner cloths of the student's parents or landlady. Such dirty habits need no comment.

2. Deposit 5s. at the Medical School Office and procure the key of a locker in which to put these and other requisites for dissection.

3. Attend at 12 noon on Monday, October 2nd, the introductory demonstration given by the Senior Anatomy Demonstrator. You will there be given a "Red Book" containing the rules of the dissecting-room, and will be told in greater detail than is possible here, the ways of the room and the work to be done.

4. In the afternoon of October 2nd look for your name on one of the lists, and find out what part has been allotted you. Then find out the times of the bone and other classes which correspond to this part. They are held by Mr. Davies-Colley and Mr. Saner.

5. Either that afternoon or early next morning begin dissecting, and remember

(i.) Not to be in a hurry.

(ii.) To read carefully in your book (Cunningham) the pages describing the surface markings of the part, and the lines of incisions that must be made.

(iii.) To turn back *the skin only*, leaving the fat upon the body.

(iv.) To remove carefully this fat, leaving intact the white layers of "deep fascia" which cover the muscles.

(v.) To clean the surface of the muscles. Cut with the grain or muscle fibre, and clean it *right up to its attachment to the bone.*

(v.) Always read ahead of your dissection, either in the pickle-room, or wax-model museum.

PHYSIOLOGY.

Physiology, which forms the basis upon which scientific medicine and surgery rests, will require the most earnest attention on the part of the student during the short space of two years which he can devote to it, and he will find that his understanding of the medical, surgical and pathological problems with which he will meet later on varies directly with the thoroughness of his physiological ground work. While attendance at physiology lectures and the reading of some elementary work on the subject, such as Huxley's *Elementary Lessons in Physiology*, or the smaller works by B. Moore and by Foster and Shore, during the first year is undoubtedly useful, yet for most men the practical study of Physiology begins in the first summer session. During this session he attends the classes in Practical Histology which are held three times a week, and for which he will need a microscope, certain mounting materials, and Schäfer's *Essentials of Histology*, which should be carefully studied.

During the first summer session and the first half of the second winter session the student should attend the lectures on Physiology (for times, *vide* table, p. 423), and also the tutorial classes which are held by the demonstrators. During this time he should read the subject in some text-book such as Starling's *Elements of Human Physiology*, Halliburton's *Handbook of Physiology*, Stewart's *Manual of Physiology*, or Howell's *Text-book of Physiology*. While attending the practical classes held during the winter the student is advised to read *Practical Physiology* (published by Arnold).

Candidates for the M.B. of London or other Universities must in addition attend the class in advanced practical physiology held twice a week during the second winter session, and this class should also be attended by men working for the first F.R.C.S. examination.

Those desirous of obtaining distinction in the second M.B. examination should supplement the course of reading indicated above with original papers in the *Journal of Physiology*, with parts of Schäfer's *Text-book of Physiology*, *Recent Advances in Physiology and Bio-chemistry*, edited by L. Hill; *Further Advances in Physiology*, edited by L. Hill; and Leathes' *Problems in Animal Metabolism*. Revision classes are held by the

demonstrators during the two months preceding the first F.R.C.S. and the M.B. examinations and should be attended by all candidates.

CHEMISTRY AND PHYSICS.

The student is often tempted to regard the study of Chemistry and Physics as one of very little use when once his preliminary examination is passed; but he will find in his study of the sciences of Physiology, Pharmacology and Pathology that a proper understanding of Chemistry and Physics is invaluable and essential. That this is so is now fully recognised in the curriculum of the London University which should be carefully studied by every London student.

The matriculated student will, in his first year, study Inorganic Chemistry, Physics, and General Biology, and at the end of this period, provided he has worked diligently in the laboratories, and attended the lectures and revision classes regularly, should have no difficulty in passing the First Examination for Medical Degrees. In his second year he will study Organic and Applied Chemistry, together with Anatomy and Physiology, and at the end of the second winter, provided, as before, that he has worked steadily from the commencement, should have little difficulty in passing the First Part of the Second Examination for Medical Degrees. Anatomy, Physiology, and Pharmacology are then taken as the Second Part of this Examination, at the close of the third winter, prior to commencing clinical work in the wards.

From the Conjoint and the Dental student only six months' work is required. but those entering without previous knowledge of Chemistry and Physics will find that time hardly sufficient, and are usually advised to take the full "year" of three terms, or nine months.

The importance of practical work cannot be too greatly emphasized, and lectures and books can but supplement work done in the laboratory. Guy's men have no excuse for neglecting laboratory work. The Chemical Laboratory, for example, is open every day from 9.30 a.m. to 5 p.m., and students are strongly urged to form early the habit of spending their spare hours, apart from those officially allotted, in one or other of the laboratories. Reading should be left for the evening. After a day in the laboratory, reading a good text-book will be found to give ample scope for thought, and rarely, indeed, be tedious. It is reading without practical experience that is so destructive of thought, and such reading is very properly stigmatised as "cram." "Cramming," or the memorising of words and phrases, without a knowledge of the corresponding realities, is one of the worst intellectual habits a student can acquire, and in the long run invariably leads to failure.

For the coming term, Chemistry Lectures start on Tuesday, October 3rd, at 12.15 p.m. (Chemical Theatre, entrance opposite Laboratory, third floor); but before this students should go to the Chemical Laboratory (10 a.m.), to receive their locker keys and apparatus and commence practical work. Practical Organic and Applied Chemistry starts on Monday, October 2nd, at 2 p.m., and the Lectures on Wednesday, October 4th, at 11 a.m. Physics Lectures commence on Monday, October 2nd, at 12 (Class Room IV., second floor).

PRACTICAL PHARMACY, MATERIA MEDICA, AND DISPENSING.

One of the many important things all medical students must know is how to write a prescription; it may even be necessary for the majority, when qualified, to know how to dispense the same, so that the student will do well not to neglect acquiring as much knowledge of this subject as he can.

The student is taught practically the methods of prescribing, he practises writing prescriptions for combinations of drugs with due regard to incompatibility, and he is taught how to dispense the prescriptions he has himself written.

The course covers the syllabus of the Practical Pharmacy of the Conjoint, the Intermediate M.B. Lond., and the Third M.B. Cantab.

During the year there may be three courses of three months each, should a sufficient number of students require instruction, which is given in the practical pharmacy class at the Dispensary by Mr. Finnemore, B.Sc. Lond., F.I.C., the Hospital Pharmacist.

MEDICAL WARDS.

The medical ward clerks should not read through a text book, but should become thoroughly acquainted with those diseases of which he finds examples in the beds which have been allotted to him. He should spend all his spare time in the medical words, observing and learning the physical signs of health and disease. If he is keen the house-physician will give him an opportunity of helping at "tappings" and venesections, and watching him examine an acute abdomen. He must have ready rough notes of the cases for the Medical Registrar, who goes round four times a week starting in the female wards at 10.30, and he must write a full report for the Physician, and after the visit of the Physician, *the ward clerk should at once enter the remarks made by the Physician and his diagnosis.* The wards are always open to the clerks after 10 a.m., except from 1 to 1.30 p.m. The reports should be brief but thorough, and the report is usually better if the ward clerk thinks, when in difficulties, the Registrar and Clinical Assistants are always ready to assist him. No ward clerk will know anything of medicine unless he attends regularly in the post-mortem room. The books usually read here are "Taylor" and "Osler," "Clinical Methods," by Hutchinson & Raney, or "Medical Laboratory Methods," by French.

PATHOLOGY.

As soon as a student has passed his Second Conjoint or M.B. examination, he should begin his study of pathology. Without a sound knowledge of this science it will be impossible for him to obtain any real knowledge of medicine or surgery, and he can, therefore, never be too emphatically urged to attend the autopsies on everyone of his cases, and to spend as much *time as possible in the post-mortem room.* Autopsies are conducted every day of the week at 2 p.m. (Saturdays at noon), by Dr. Fawcett, Dr. French and Dr. Hertz. The microscopical examination of material removed by operation, is often the only means of arriving at a definite diagnosis, and it is therefore equally important that the student should obtain an adequate knowledge of microscopical appearances in disease.

Classes on microscopical pathology are held by Dr. Boycott and Dr. Eyre on Wednesday afternoons and Thursday mornings throughout the year. Bacteriology being taken in October to December and April to June, and morbid histology from January to March and July to September. Further the student should attend Dr. Fawcett's class on medical pathology, and Mr. Rowlands' surgical pathology which are held three times a week.

In order to learn something of the principles which underlie pathology, the student should attend the lectures on general pathology. In May and October there are also informal classes adapted for the requirements of candidates for the first part of the Third M.B. Cantab., and the final M.B. of Oxford and London Universities.

The best elementary manual is Green's "Pathology"; Hewlett's "Pathology, General and Special" is good but hardly full enough. For general pathology read Adami's "General Pathology" and Lazarus-Barlow's "General or Experimental Pathology," and for morbid histology Woodhead's "Practical Pathology," of which the illustrations are very good. Many of the articles in Allbutt and Rolleston's "System of Medicine" should be consulted. For bacteriology Muir and Ritchie's "Manual of Bacteriology" is recommended.

BACTERIOLOGY.

Every Guy's man devotes at least three months to the practical study of Bacteriology. This compulsory course comes under the heading of Microscopical Pathology, and alternating with Morbid Histology, is held every Wednesday afternoon and Thursday morning from October to December, and again from April to June.

Bacteriology, although one of the youngest of the auxillary sciences, has already made a most profound impression upon the theory and practice of both medicine and surgery, and by providing appropriate and specific treatment for bacterial infections has created the demand for exact as well as accurate diagnosis. Consequently, particular attention is devoted in this class to the technique of the various investigations undertaken in connection with the ward work. The student himself stains sputum, pus and morbid exudates by various methods to demonstrate the associated bacteria. He estimates the amount of specific agglutinins or opsonins contained in the serum of patients under treatment in the wards. In addition, he is instructed in the practical work of media-making, culture and staining methods, and is encouraged to repeat for himself during the intervals between successive classes any observations and experiments previously carried out, *in order that he may be adequately prepared to take* advantage of the advance classes and lectures which are available during the fourth and fifth years of study, and to equip him for the performance in general practice of those more obvious methods of bacteriological diagnosis which the past generation of medical men has been compelled to entrust to the pathological experts of his own or other hospitals, or, as so often happens, to the various commercial houses which make a speciality of clinical research and diagnosis. Demonstrations are also given upon the life-history of the various organisms pathogenic to the human race, and the changes such organisms undergo or produce when they gain entrance to the human tissues.

In order that the student may make the fullest possible use of his opportunities of correlating the clinical symptoms resulting from the infection of the patient's tissues by various pathogenic organisms, the class in bacteriology should be taken out as early as possible during the period of clinical study, and the work has so been planned that the whole of the six months devoted to microscopical pathology may run coincidently with the appointment of medical or surgical clinical clerk: and it should be emphasised that the clerk's absence from the wards during the hours the class is being held is not only sanctioned, but, indeed, is expected by his chiefs.

During February and March of each year a course of lectures is given dealing even more specially and technically with the applications of bacteriology to practical diagnosis and treatment, and in these the various agents (serums and vaccines) which have been elaborated in the bacteriological laboratory for the treatment of disease are fully discussed, together with the facts and theories relating to natural and acquired immunity upon which bacteriological therapy is based.

THE SURGICAL WARDS.

In the surgical wards there is a division of labour, and corresponding to this division, the appointments fall into two classes—clerking and dressing. The student's first introduction to clinical work is as clerk in the surgical wards, and it is not unlikely that he may, on his first entry, be a trifle discouraged. The reasons for this are obvious. Entirely ignorant of surgery and even of the terms in common use, he is at once required to write *full accounts of the cases admitted to the wards.* He will find, however, that, with the assistance available at his disposal, his difficulties will be found to be anything but insurmountable.

The most important point for a clerk to remember is that in after years cases and not book work will form his mainstay in practice, and that he cannot too soon get the clinical entity and results of treatment into his memory.

Let him bear in mind that to him is given by the hospital the task of keeping its records. These are bound and kept, and by his work thus perpetually in evidence a man is judged. Bad reports are a lasting disgrace; good reports a lasting honour. There is no better way of impressing the facts of a case on one's mind than is gained by the construction of a correctly detailed report, which, moreover, will be of value if the case has to be referred to at a future date. The importance of good careful work by the clerks cannot be over-estimated. In the nature of things it cannot be perfect, but it must be as perfect as he can make it. By his first work in the wards he will be judged, and he will find that it is very hard to live down a bad clerkship. At the same time that he bears in mind the difficulties and responsibilities of his post, he should remember that he is a junior, and that any assistance he can lend his seniors should be offered ungrudgingly, and in return for this he will undoubtedly meet with that consolation and help in his work which is so necessary.

It is essential that either the clerk should live within walking-home distance of the hospital, or else get a room for the take-in week. All really good casualty work is done at night, and the periods for seeing the actual application of Croft's and Bavarian splints and treatment of fractures is all too short as it is.

As soon as he is appointed, he should obtain from the Medical School office the "Notes on Surgical Case-taking" issued by it. A few days before taking over the work he will meet the surgical registrar to find out to whom he is appointed, and should then learn from his predecessor what he can about the cases he is to take charge of, so that the work may be continued as nearly as possible without a break. At the present time there is an entire change of clerks every three months, but in the way indicated above, the break in the work may be obviated to some extent. He should learn quickly to take accurate pulse and respiration rates, and test urine, for without any exception the temperature, pulse and respiration rates, and condition of the urine must be included in the notes of every case on admission. The surgical registrar sees every new case with the clerk on the morning after admission, when he expects a history of every case to be ready. This, if vague, is useless. All symptoms should be set down in exact order, with the dates of their appearance. The exactness in detail is of the highest importance, and is a measure of the care with which the clerk has done his work. He should have a note-book, and should put down in it everything about the case that he can obtain from the surgeon, house-surgeon, clinical assistant, and dresser. This should be copied into the report as soon as possible. We would impress upon each clerk the value of seeing everything done by the dressers or house-surgeons—the operations, putting up fractures, especially when done at night in take-in week, and this should apply to manipulations on every case under the surgeon, and not only to the cases which the individual clerk has to report—as much may be learnt in this way which otherwise can only later be gathered with much greater effort.

He should also attend the practical surgery classes of the surgical registrar, who gives four courses a year, each beginning on the appointment of the new surgical ward clerks, and especially designed for their instruction in all matters relating to that appointment, and also the course of practical pathology which is then in progress.

Lists of the duties appertaining to each appointment are supplied to the students, and these are to be carefully followed out. The hospital not only expects this, but insists on it. We have laid stress so far on the appointment of surgical ward clerk, as it is the first post that the student holds, and because he is so often quite unaware of the objects of the appointment.

The surgical wards are visited every day by the surgeons and assistant surgeons at 1.45. Notice of operations, which usually take place on Mondays, Tuesdays, Thursdays and Fridays, except for emergencies, is posted overnight in the colonnade by the House-Surgeon for the week. The surgeons are assisted at the operations by the dressers, and the particular clerk to the case should remain close by throughout the whole operation.

Although we believe there is no rule which prevents freshmen attending operations and clinical demonstrations, we would point out that such a course of action is useless to them, and is not encouraged by the authorities.

DAYS AND HOURS OF ATTENDANCE ON HOSPITAL PRACTICE

Accidents and urgent cases of all kinds are admitted by the St. Thomas's Street entrance at any time of the day or night.

THE WARDS.

Medical Wards.—Dr. Hale White (2), Mondays, Tuesdays and Thursdays. Dr. Pitt (2), Mondays, Tuesdays and Fridays. Sir Cooper Perry (2.15), Mondays, Thursdays and Fridays. Dr. Shaw (2), Mondays, Tuesdays (10.30), Thursdays (10.30) and Fridays.

Surgical Wards.—Mr. Symonds (1.45), Mondays, Tuesdays, Thursdays and Fridays. Mr. Lane (2), Mondays, Tuesdays, Wednesdays, Thursdays and Fridays. Mr. Dunn (1.30), Mondays, Tuesdays, Wednesdays, Thursdays and Fridays. Sir Alfred Fripp (1.30), Tuesdays and Fridays. Operations (1.30) daily.

Obstetric Ward.—Mr. Targett (2), Mondays, Wednesdays and Thursdays. Mr. Bellingham Smith (2), Tuesdays and Fridays.

Ophthalmic.—Mr. Eason (2), Mondays and Thursdays. Mr. Ormond (2), Tuesdays and Fridays. Operations (2), Tuesdays and Thursdays.

THE OUT-PATIENT DEPARTMENT.

The days and hours of attendance in the Out-Patient Department of the hospital are as follows:—

Medical Cases.—Dr. Fawcett (1), Thursdays. Dr. Beddard (1), Wednesdays. Dr. French (1), Fridays. Dr. Hertz (1), Mondays. Dr. Cameron (1), Saturdays.

Surgical Cases.—Mr. Steward (1), Mondays. Mr. Fagge (1), Wednesdays. Mr. Rowlands (1), Thursdays. Mr. Turner (1), Saturdays. Mr. Hughes (1), Tuesdays and Fridays.

Obstetric.—Mr. Targett (1), Saturdays. Mr. Bellingham Smith (1), Thursdays.

Ophthalmic.—Mr. Eason (1), Tuesdays and Fridays. Mr. Ormond (1), Mondays and Thursdays.

Dental.—The Dental Staff (9) every week-day.

Aural.—Mr. Mollison (1), Tuesdays and Thursdays.

Skin.—Sir Cooper Perry (1), Tuesdays.

Throat.—Mr. Steward (1), Fridays.

Electro-therapeutic.—Dr. Hertz (1.30), Wednesdays and Fridays.

Actino-Therapeutic.—Mr. Iredell (11), every week-day.

Orthopædic.—Mr. Rowlands (9), Tuesdays.

Nervous Diseases.—Dr. Hertz (9), Wednesdays.

Genito-Urinary.—Mr. Thompson (1), Mondays and Fridays.

DENTAL SCHOOL.

The dental student is supplied at the Medical Office with the Prospectus, Standing Orders, Notes on Probationary Work, List of Instruments, Calendar, and Clubs' Union Book.

These pamphlets should be carefully perused in order that acquaintance may be made with the general arrangements of the school and the scope of the work upon which the student will become engaged.

Instruments having been purchased at a dental depôt, the student should satisfy himself that he has been supplied with all of those described in the hospital list.

Probationary work upon the phantom head will occupy the freshman's time for about two months. This operative course, conducted by the staff demonstrators, is very comprehensive. It includes most of the conservative operations that the student will subsequently be called upon to perform upon patients, namely, gold and other fillings, crowns, inlays, and the treatment of devitalized and septic teeth. These manipulations upon the dummy, when done in a thoroughly sound manner, form a capital ground-work in operative dentistry.

Pupils in Dental Mechanics are received at the hospital, and a systematized and graded course of instruction is carried out by a competent teacher.

The regulations of the Royal College of Surgeons of England require that students shall pass two professional examinations for the dental licence. At the first examination certificates must be produced, *inter alia*, of having been engaged in the practice of dental mechanics under a registered dental surgeon, or under the direction of the superintendent of the mechanical department of a recognised dental hospital, during a period of two years, and of having manufactured and adjusted six dentures and six crowns.

As this examination may be passed in the month of May, the work of the first winter session should be largely devoted to demonstrations, dental mechanics, and lectures

Students in difficulties about their work and needing advice are invited to consult the Dean, or any member of the Staff, who will be pleased to do what they can to promote the interests of students.

SPECIAL DEPARTMENTS.

There are at present ten special departments in the Hospital, namely, Throats, Ears, Eyes, Skins, Gynæcological, Nervous, Actino-therapeutic, Electro-therapeutic, Orthopædic and Genito-urinary, and with the beginning of the October session another for the treatment of diseases of children is to be added. In all these departments the latest methods of diagnosis and treatment are to be seen, and much valuable information may be gained by the student.

The Genito-urinary Department has only been started during the last year, and is in charge of a special surgeon who is assisted by two or three clinical assistants. There is both an in-patient department and an out-patient department. The more important and urgent cases are admitted into the former department from the latter. Although the usual cases of veneral disease are attended in this department, it is primarily intended for the special investigation and treatment which modern advances have rendered necessary of diseases of the kidney, ureter and bladder. At present special arrangements are made for cystoscopic examination of the bladder and ureters as occasion arises. Cystoscopsis are usually announced beforehand upon the operation list in the Colonnade.

Out-patients are at present seen and treated upon Monday and Friday afternoons, but it is hoped that shortly, Wednesday and Saturday mornings will be appropriated to the Genito-Urinary Department, and special selected days will be reserved for teaching and the demonstration of cases, the nature of which will be announced beforehand in the columns of the GAZETTE. There can be very little doubt that the authorities at Guy's Hospital were very wise in instituting the Department. Guy's is the first large hospital in Great Britain to institute the special department under a special surgeon, thus bringing itself into line with the large American and Foreign Hospitals, where so much useful work is done, and where the anxious student may pick up much valuable information.

The days and hours at which Out-Patients are seen in the various special departments will be found on page 430.

The Choice of a Microscope.

Immediately on entering the hospital our medical student finds himself faced with a problem of serious import, although he may at the moment fail to recognise it as such, viz., the Choice of a Microscope. The present-day study of medicine necessitates the use of the microscope from the most elementary stages until the moment when our fully-fledged medico leaves his *alma mater*, and, indeed, after that, if he is to put into practice the many aids to diagnosis which he has studied in the hospital laboratories. Occasionally it happens that he is already provided with an instrument of weird and wonderful design which served his forbears during the early days of microscopy, but such an instrument is useless at the present day. A comparatively simple microscope is adequate for the work carried out in the biology class, where our student first comes to hand-grips with the microscope, but it must be borne in mind that later, when studying histology, and more particularly when he embarks upon the study of bacteriology, a really sound instrument and first-class lenses become absolutely essential.

We would impress upon the man who enters the hospital totally unfamiliar with microscopical work, the fact that the services of his teachers, whose experience in microscopical matters is extensive, and has been quickened by the observation of difficulties encountered by past generations of students, are always at his disposal. There should, therefore, be nothing to prevent him from purchasing at the very outset of his student's career, a microscope stand of thoroughly sound construction, and of such a pattern that the additions necessary to fit it, even for research work, can be added from time to time as the necessity arises, at comparatively small cost.

Although some twenty or thirty years ago Continental makers were unrivalled in the manufacture of microscopes, and still retain much of the reputation they then gained, yet at the present day the stands made by some of the British firms are undoubtedly superior in materials, workmanship, and attention to constructional details, and we would strongly urge the purchase of a stand of English manufacture; such for example as the Stand H (Edinburgh Students) made by Messrs. Watson & Sons, 313, High Holborn. This is of the tripod pattern,

jointed, provided with a rack work, coarse adjustment, fine adjustment of the lever type, large stage, with square opening, fitted with mechanical movements, compound sub-stage (to which additional apparatus may be attached in the future), and a swinging double mirror, plane and concave, and costs about £10. The addition of a 1in. lens, a $\frac{1}{6}$in. lens, and two eye-pieces, one magnifying two diameters, the other eight, at the cost of about another £3, provides the student with an instrument which will prove a faithful friend during the preliminary studies of biology and physiology. It will also serve him for his morbid histology, and when he enters the bacteriological class he will merely need to add an Abbé sub-stage condensor, costing from 15s to £1, a triple dust-proof nose-piece, £1, and a $\frac{1}{12}$in. oil immersion lens, which will cost him a further £5. Practically all the standard makers put a really good immersion oil lens upon the market at this figure, the best being those supplied by Watson & Sons, Crouch (Agents, Messrs. Maw, Son & Sons), and the Continental firms of Zeiss, Leitz, and Reichert.

In chosing a microscope it is not always true economy to obtain the entire equipment from any one firm; and it may be well at times to get a stand from one maker, one lens from another, the second lens from a third, and so on, for all lenses, etc., are made to standard screws, therefore accessories manufactured by different firms are interchangeable; and in this connection the expert knowledge of his teachers in the medical school is so valuable to the student.

Such a microscope as we have sketched out is the ideal from the point of view alike of the student and the teacher; but in some instances the initial cost may be greater than the student cares to incur, and if this is so, he will find that nearly all the reliable firms make less costly models, which will serve his purpose. For a student's microscope of proved reliability, Messrs. Watson & Sons' "Stand F" and "Fram" models are to be recommended; these instruments, with 1in. and $\frac{1}{6}$in. objectives, eye-piece, and case cost £7 17s. and £6 5s. respectively.

Or again, the student may occasionally be able to acquire a good second-hand microscope comparatively cheaply, but such an instrument should never be purchased unless he can obtain it on approval, and submit it to expert opinion before completing the purchase, especially if the microscope is to be obtained from a pawnshop or second-hand dealer. A good plan, often productive of marvellous bargains, is to enquire of some first-class firm whether they have an instrument of their own make for disposal second-hand, as it sometimes happens that a microscopist disposes of a particular microscope in part-payment for a more expensive model, and in this case the purchaser of the second-hand instrument obtains the guarantee of the maker that the microscope is in good condition. Second-hand lenses may also be picked up occasionally; Messrs. Baker & Co., High Holborn, and Messrs. Millikin & Lawley in the Strand, usually have a good selection of second-hand lenses. Slide boxes or cabinets to contain finished slides can be obtained of any of the microscopical instrument makers, the nearest being Messrs. Stanley, whose place is close to London Bridge Station.

Instruments.

Both in the wards and in the dissecting-room and the physiological laboratory the student will find that he needs several instruments. In the wards he will want a stethoscope, dressing instruments, tape measure, and possibly such instruments as an ophthalmoscope, etc., and, in his previous work, a dissecting case is an absolute essential.

There are many instrument makers in London, the majority of whom make a point of catering for the new student.

The student would do well to give Messrs. Down a call and inspect their large and varied stock of dissecting cases, dressing cases, midwifery bags, etc. The firm supplies all apparatus necessary for work in the wards or in the laboratories, and all their material is of the best quality. The Holborn Surgical Instrument Company, Ltd., 26, Thavies Inn, Holborn Circus, E.C., have also a large stock of instruments, at comparatively cheap prices, while Messrs. Millikin and Lawley, Strand, London, W.C., have always on hand a large variety of new and second-hand instruments and bones.

At all these firms the student may obtain blood-counting apparatus, ophthalmoscopes, pocket spectroscopes and other desirable, if not absolutely indispensable, instruments. Messrs. Watson and Sons, of 313, High Holborn, and Mr. Baker, of 244, High Holborn, however, list special sets of blood-counting apparatus designed for students and clinical use, and in addition stock several sets of microscopical apparatus, including stains, etc. Messrs. Stanley, Station Approach, London Bridge, who are opticians to Guy's Hospital, have a large and extensive stock of microscopical apparatus, such as slides, specimen boxes, etc., and their shop is conveniently situated for those who cannot afford much time. Their articles are of excellent manufacture, and thoroughly satisfactory.

Books.

The student who wishes to obtain his books at once should not take the first he sees on any particular subject, but would be wise to consult his demonstrators first; the number of text-books is very large, and the choice is a difficult matter to the inexperienced. Roughly speaking, second-hand books are very seldom worth anyone's while to buy, chiefly because medical science is progressing so rapidly that new editions are constantly being published.

The number of publishers of books for medical students is great. Messrs. Churchill published Taylor, Jacobson, Goodhart, Fagge, and many other well-known works. Messrs. Macmillan publish Allbutt, Foster, and a great number of first-year books; Messrs. Longmans, Green & Co. publish the famous Gray's Anatomy. Mr. H. K. Lewis, 136, Gower Street, publishes a number of medical books, and has also a medical circulating library which is valuable to students who wish to see all the latest books. Mr. Murray also publishes many well-known medical books, as also do Smith, Elder & Co.; Philip & Son; and Cassell & Co.

As we have mentioned, it is rarely that second-hand books will be required, but there are cases in which they are valuable. Mr. Chas. Sawyer. 29-31, New Oxford Street, W.C., has a long list of last editions at very moderate prices, and there are other second-hand booksellers.

All books can be obtained from Mr. H. H. Grattan, in Borough High Street, who is the "official bookseller" to the hospital. Many well-known books he can supply over the counter; any others desired he will have in an hour or two.

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE.

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Passim.

LIVING as we do in an age of laboratories and 'scopes, of investigations and theories, it is apt to escape some of us that the prime object of medicine is the treatment of patients. The Georgian doctor, with his bedside manner and his habitual diagnosis of congestion of one or other of the organs, is gone, and his place is taken by the more scientific and accurate, but very often less human doctor of to-day. Empiricism is very rightly scoffed at by science, but it still holds, and always will hold, an important place in treatment; and one of the oldest empirical facts in medicine is the supreme importance of confidence on the part of the patient in the medical man. Mere knowledge does not inspire confidence, neither does the possession of a long list of degrees, but it rests rather in that intangible something which is the outcome of a judicious mixture of sympathy and tact. Sympathy unfortunately cannot be cultivated, but tact can, and it is the necessity of developing our tact in the treatment of patients that we would emphasize.

THE hospital is the place where the training upon which depends success or failure in practice is obtained, and we would urge the desirability for all reasons, of developing, while still at the hospital, our tact in the treatment of patients. The average hospital patient is undoubtedly a very difficult individual with whom to deal, but difficulty is no excuse for failure, and there is never a justification for bad manners. We do not wish to imply that hospital patients as a whole are treated badly, but we do think that there is a tendency to be unduly casual and gruff with patients, although this is a fault from which Guy's is remarkably free as compared to many other hospitals. Nevertheless, we feel that even at Guy's there is a good deal of unnecessary irritability in talking with patients, a habit which is not only bad at the hospital, but which spells in most cases failure when, without the traditions and authority of a large hospital at his back, the young doctor endeavours to get together a practice in private

WE note with interest that our contemporary, *The Hospital*, is from now onwards to become primarily an institutional organ. While quite sure that in this capacity it will serve a much-needed purpose, we cannot help feeling that it is taking upon itself a grave responsibility. To be efficient in the field that it has chosen it must be honest, and to be honest it must be well informed, and we trust that it will avoid those personal attacks, often, or mostly, founded upon quite inconclusive evidence, which have given it a somewhat unenviable notoriety of late. Its price has been reduced to one penny, which should insure it a greatly increased circulation, and provided that it is conducted with moderation and a due regard for truth, it should become a powerful influence for good in the institutional world, and an excellent antidote to the distrust of the Hospitals which is still present among certain sections of the community.

The new regulations in the Out-Patient Department, about which there has been so much discussion, have been in operation since October 1st, and apparently entail even greater departures from the old system than we had been led to expect. Patients, other than accidents and urgent medical and surgical cases, who come to the Surgery, are apparently to be examined only as far as is necessary for a provisional diagnosis, and are then to be sent, *without treatment*, to the proper Out-Patient Department. By this system the authorities hope to avoid the overcrowding of the Surgery which has been so troublesome in the past, and this result will no doubt be achieved. There are, however, two disadvantages of the new method which make one wonder whether some other solution of the difficulty would not on all grounds be more desirable. The first is the great inconvenience and cost entailed on the patients, and the second the diminution of the valuable clinical experience afforded by the old Front Surgery.

We can well understand that a patient coming to a hospital expects, and is fully justified in expecting, to be treated either by drugs or advice for the complaint from which he is suffering, and his annoyance at being given merely a card to come up at some other time can well be imagined. Further, in many cases, it is impossible for a patient to come up at the time fixed for Out-Patients without serious pecuniary loss, owing to absence from work, fares, &c. The answer to this argument that if a patient cannot come at the fixed time he must seek treatment elsewhere is no answer, since hospitals, being intended for the treatment of the sick poor, must surely not make arrangements which shall preclude many people from enjoying the advantages they offer. This objection is particularly in evidence in the case of babies. Most Borough mothers are at work during the day, and cannot bring up their babies, except in the evening, without losing a day's work. The result of this is that in many cases the babies will not be brought up at all, and in others the family income, already slender enough, will be still further reduced.

We see therefore that the new system is, in most ways, undesirable from the patient's point of view (and those who doubt us need merely spend five minutes outside the Surgery to be convinced) and we cannot find any marked administrative economy of time or money to balance this. For a patient to be half examined by a man and then given a card to be thoroughly examined by the same man next day, is not to our mind economy of labour, nor is it conducive to the ultimate good either of the Surgery Officer or of the patient. Any change must of course have a fair trial before it is criticised, but we hope that when the authorities realise the great hardships imposed upon the patients by the new regulations, they will evolve some system by which the Hospital shall retain its old position of family doctor to the inhabitants of the Borough, and elsewhere, whom circumstances force to seek its aid.

It is always difficult to change old customs, but in the general revolution which is taking place in Out-Patients, it is to be hoped that one custom, which we have previously pointed out in the Gazette as extremely undesirable, will be abolished. We refer to the fact that Assistant Surgeons' Dressers select the cases to be seen by the Assistant Physician in Out-Patients. We feel sure that this arrangement is of advantage neither to the physician, the dresser, nor the patient, and any change would, we think, be welcomed by all concerned. The privilege of the Assistant Surgeons' Dressers of going over cases before they are seen by the physician might easily be retained, if Out-Patient Officers were to select the cases for the physicians early in the morning; and the result would be that much time would be saved, and far better clinical material obtained for teaching purposes.

In our correspondence columns will be found a letter calling attention to the inefficient state of the Clubs' Union Year Book, and pointing out how great its usefulness might be were it but up to date and complete. We quite agree with our correspondent and think that it is a

matter worthy of the serious attention of the Clubs' Union Council. It should surely be an easy matter to publish the addresses of, at any rate, all registered Guy's men, and by appointing a special editor, preferably a paid official, such matters as Births, Marriages, and Deaths, might be kept up to date. A good deal of the contents of the Year Book, which is also to be found in the Blue Book, might well be omitted, and the money thus saved devoted to making the remainder of the book more complete and satisfactory than it is at present. An efficient Year Book would have a great value to all Guy's men, and we feel that our correspondent's suggestion that a fitting celebration of the coming of age of the Clubs' Union would be the production of an up to date and completed Year Book, is well worthy of attention.

The subject of anæsthetics and their administration is one which has been talked about so much recently that we approach it with a certain amount of temerity. It cannot, however, be too emphatically insisted on that nowadays the anæsthetic is feared even more than the operation by the average patient. That this is due largely to absurd articles in the yellow press, and to the ridiculous riders of ignorant coroners' juries, there can be no doubt, but even so a great deal might be done to make the administration of an anæsthetic a less fearsome process than it is at present. The provision of separate anæsthetising rooms is apparently impossible, owing to lack of space, but it might surely be possible to ensure quiet to a certain extent in the theatre until the patient is under. Hearing, as all who have taken an anæsthetic can testify, persists a good deal longer than is generally thought, and the discussion of cases and instruments which so commonly takes place while the anæsthetic is being given, is, to say the least, very unpleasant for the patient. We would, therefore, insist upon the necessity of as few people as possible being in the theatre until the patient is unconscious, and feel sure that the time lost by deferring the bustle of preparation is amply compensated for by the additional safety and comfort of the patient.

Taking advantage of the courteous invitation of the Editor of "The British and Colonial Druggist," we visited the Medical Exhibition held last week at the Royal Horticultural Hall. To all appearances the exhibition was a great success, for the Hall was crowded with all sorts and conditions of medical men, who examined, criticised and discussed, with keen appreciation, the innumerable exhibits of the druggists' and instrument makers' art. Samples of, and literature relating to, every possible variation in therapeutic ingenuity were to be had for the asking, and, were the performances of the different drugs but one tithe of their pretensions, there should, by this time, be left but few uncured individuals. Nevertheless, there was much to be learnt from a journey round the various stalls, and many useful hints and fresh ideas could be obtained with regard to both practical medicine and surgery. The exhibition itself was excellently managed, and every care was taken for the comfort of visitors. We may perhaps be pardoned if we came away with the feeling that much that we had seen was a demonstration more of advertising and pharmacological juggling than of medicine in the broadest sense. Be that as it may, taken "cum grano salis," the fare provided was of the best, and our hearty thanks are due to its providers.

The Residents' going-off dinner was held on Friday, September 29th, and was as usual much enjoyed by those present. Messrs. Lucey and Poulton, the off-going President and Vice-president were succeeded by Messrs. F. D. Saner and G. Y. Thompson. The post of President of the Residents at Christmas time is by no means a sinecure, but we feel sure that Mr. Saner will carry out the many duties which devolve upon him efficiently, and will maintain the high standard reached by the Christmas festivities at Guy's in past years. During the evening songs were contributed by Messrs. Lucey (who will be sadly missed in the Niggers) Eccles, Irvine, Cline and Bodkin, to the accompaniment of Mr. Jarvie, and were much appreciated.

It is proposed to hold a Guy's Hospital Ball, at Princes' Galleries, on either November 27th

or December 8th. A limited number of tickets will be sold, price 12/6, and the Committee reserves the right to raise the price after a certain date, to be announced later. Application for tickets should be made either to the Hon. Secs., Messrs. A. S. Roe and G. R. Hind, or to any member of the Committee. Further details will be published in a future issue of the Gazette.

The next demonstration on selected Genito-urinary cases will be held in the Genito-urinary Out-Patient Department, on Friday, October 20th, at 1.30 p.m. The subject of the demonstrations will be cases of Hæmaturia, and the demonstrations are, of course, open to all old Guy's men as well as present men.

We are asked to announce that now the cold weather has set in, Sister Out-Patients will be glad of any clothes, boots or shoes for which the owners have no further use. These will be of great use to Out-Patients, and should be sent either to Sister Out-Patients, or to the Gazette.

The following Entrance Scholarships and Certificates have been awarded :—

Junior Science Scholarship.—£100, L. S. Debenham ; £60, P. G. McEvedy.

Certificate.—J. G. Jones.

Entrance Scholarship in Arts.—£100, T. A. V. Wood ; £50, F. G. Scott.

Certificate.—O. A. Dyer.

We regret that by force of habit the statement was made in the last number of the Gazette that accident cases are admitted by the St. Thomas's Street entrance. The entrance for all Surgery patients, day and night, is of course now in Maze Pond.

As we go to press we learn that Dr. Pavy's will contains a legacy of £2,000 to endow the Pavy Gymnasium which he so generously gave to the students of Guy's Hospital. With this sum at their back the various clubs in connection with the gymnasium will be free from all pecuniary anxieties, and Dr. Pavy's generous bequest should encourage in them an even greater enthusiasm than they have shown in the past.

An Open Road.

"I played, there were no deeper seas,
Nor any wider plains than these,
Nor other Kings than me."

Would you see the spirit and imagination of that child dreamer made possible to nearly a hundred children delicate as he? It can be found in the garden of a detached house in the south-east district, little more than half an hour's tram ride from our Hospital. An open-air school most economically and unpretentiously organised by the London County Council. Seemingly the only lavish expenditure is in the enthusiasm and devotion of the head-master and his little band of teachers.

The children, mostly suffering from tubercular disease, some being ex-patients at Guy's, are drafted from the elementary schools upon medical recommendation. The County Council trams pass the gate, and thus they can be safely and cheaply conveyed each day from the whole South London area. The hours are from nine to six, and are *entirely* spent out of doors. Three generous meals are provided, including a pint of milk for each child daily.

Mid-day rest or sleep in hammock-chairs is part of the régime. A trained school-nurse is in attendance, and her duties include a weekly bath for each child and an accurate record of its weight. Payment for trams and meals is made by the parents, except in necessitous cases. Ordinary lessons, including sewing for the girls, are given, as they are found suitable, in two small "class-rooms" of Arcady; the forms and desks under the boughs of trees.

These are the bare facts, but that suburban garden holds magical possibilities; health, and a far-reaching and visionary future. The special aim of the school is to train for an open-air life with the ideal of emigration, "with just that door ajar that oceans are."

The children prepare the beds for and tend the growth of various food-stuffs, root and seed, and are taught the building of sheds and homesteads. On a miniature scale they trace the development of commerce from the finding of coal and minerals to their shipment from the tiny estuary of the chosen land.

In all ways that sunlit garden should fire the imagination of the children and open their eyes to a world otherwise far beyond their gaze. Eloquent of this there is to be found at the edge of a tiny pond, made by the children and their master, a sun-dew. The plant that spoke to Swinburne of moors and heather, and also of man's limitations when confronted by the secrets of the natural world.

"If life taste sweet to it, if death
Pain its soft petal, no man knows:
Man has no sight or sense that saith."

During this summer of hot days all the children have been much in evidence throughout their holidays, which have given them greatly increased pleasure through the efforts of their teachers, a body of men and women that bring a vitality and personality to their work unequalled

in other professions. A sufficient reward, but one not easy of achievement, will be when the children of those they are now training will bring about and uphold for themselves a better social condition and order.

Remember that the school days end at fourteen, and for those physically defective at sixteen years of age. What wonder that they soon "forget." Thanks to the holiday schools, swimming lessons in the public baths, and many other efforts, the children of the poor are learning to play.

Such guidance is necessary to all. That mind to whom all nature was revelation acknowledges the thanks of a child to one who gave him eyes and ears.

"A heart, the fountain of sweet tears,
And love, and thought, and joy."

To "Punch," always a lover of children, the prettiest sight of the whole year was the hundreds of youthful bathers in a shallow East-end lake, as also in the Serpentine, where ordinary bathing regulations were mercifully relaxed. What delightfully grubby parties encamped in Kensington Gardens, some the happy possessors of a family towel. The "loaf of bread and flask of wine," chiefly represented by a bottle of water repeatedly filled by kindly water-cart men. That and the sun and grass made a "Paradise enow."

F. A. S.

Nursing News.

Matron's Office.

On July 20th, Nurse Holdsworth, Head Nurse in Astley Cooper ward, left the hospital on completion of her three years' training, and Probationer A. Prince was appointed to succeed her as Head Nurse.

On July 20th, Nurse Shepherd, Head Nurse in Naaman ward, left the hospital on completion of her three years' training.

On July 26th, Nurse Dowley left the hospital on completion of her three years' training, and Probationer Cronin was appointed to succeed her as Head Nurse in Bright ward.

On August 4th, Nurse Hinds left the hospital, having completed her three years' training on July 20th, and Probationer Rudd was appointed to succeed her as Head Nurse in Esther ward.

On August 14th, Nurse Illingworth took up her duties as Staff Nurse in the Isolation wards.

On September 5th, Nurse R. Miller left the hospital on completion of her three years' training, and Probationer M. Brooks was appointed to succeed her as Head Nurse in Queen ward.

On September 6th, Nurse Bruce left the hospital on completion of her three years' training, and Probationer Phillips was appointed to succeed her as Head Nurse in Cornelius ward.

On September 7th, Nurse Scott left the hospital on completion of her three years' training, and Probationer Yeoman was appointed to succeed her as Head Nurse in the Out-Patient Department.

On September 12th, Nurse New left the hospital on completion of her three years' training, and Nurse Lane was appointed to succeed her as Head Nurse in Stephen ward.

On September 15th, Nurse M. Blenkarn left the hospital on completion of her three years' training to take up the appointment of Sister at the General Hospital, Gravesend. Probationer Templeman has been appointed to succeed her as Head Nurse in the Eye wards.

On September 20th, Probationer Thomas was appointed Head Nurse in Naaman ward.

On September 20th, Nurse Yates left the hospital on completion of her three years' training, and Probationer Brereton was appointed to succeed her as Head Nurse in Bright ward.

On September 25th, Nurse E. C. Orchard, Head Nurse in Patience and Samaritan wards, left the hospital on completion of her three years' training, and Nurse Lay, Head Nurse in the Theatres, was appointed to succeed her.

On October 3rd, Nurse Pearman left the hospital on completion of her three years' training, and Probationer Waterman was appointed to succeed her as Head Nurse in Stephen ward.

On October 4th, Nurse C. Prince left the hospital to take up her duties on the Private Nursing Staff.

On October 4th, Nurse Grant was transferred from Victoria to Mary ward as Head Nurse, and Probationer Lewin was appointed to succeed her as Head Nurse in Victoria ward.

On October 7th, Nurse Drew left the hospital on completion of her three years' training. Nurse Greaves was transferred from the Surgery to Astley Cooper ward, and Probationer Strange was appointed Head Nurse in the Surgery on night duty.

Miss E. K. Blayney who, since completing her training in 1901, has been Sister of the Royal Victoria Hospital, Belfast, and Sister at the General Hospital, Birmingham, has been appointed Lady Superintendent of the General Infirmary, Chester.

Miss A. R. Keays who completed her training in June, 1910, has been appointed Lady Superintendent of the Afzul Gunj and Victoria Hospitals at Hyderabad, Deccan, India.

Miss A. M. Traill, who completed her three years' training in May last, has been appointed Sister at the Kasr-el-Aini Hospital, Cairo.

Guy's Hospital Choral Society.

At a committee meeting held last week the above Society decided to hold two concerts this season—first, December 12th, 1911: second, February 20th, 1912.

The Secretary hopes that *all* those interested in choral work will turn up in the committee room (Medical School) on Fridays at 5 o'clock p.m. (men only), and again at 8 p.m. for the combined rehearsals.

H. N. ECCLES, Hon. Sec.

October 10th, 1911.

Correspondence.

To the Editor of Guy's Hospital Gazette.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—Ed., G.H.G.]

Students' Number.

Dear Sir,—The current issue of the Gazette (September 30th) must be rather a perplexing one to such freshmen as care to read it. Here are you, Sir, continuing your brisk encounter with the *British Medical Journal*, and holding out hands of encouragement and comfort to the new students. But here, on the other hand, they shall find words from another gentleman, cast in another mould, railing on the conditions of life and practice, and counting you, Sir, as little better than a Socialist agitator, flown, like a son of Belial, with insolence if not with wine. And here, again, is Mr. Paget's fine article, full of common sense, and yet hot with a wise enthusiasm for the intangible things of life. How is the profession divided against itself! What is this that we have done in joining its broken ranks?

I write as a student myself—and I trust I voice the opinions of many in the Hospital—to say to you, Sir, go on and prosper, I am right glad to see you so insistently on the side of the angels. It is indeed time to speak, and to speak vigorously, on the more hopeful and generous side of the question, if only as an antidote to the complaints and embittered counsels which seem spreading on every hand. We may admit that the Bill is bad; that general practitioners are hard worked and poorly paid; is that a sufficient excuse for turning against the profession, for holding up deprecating hands and crying to all new comers: "Away, young students: pity us, despise us, only do not join us, for we are like to sink in deep waters; we have lost all our dignity and all our money, and are become a dismal and doleful company of men?"

We may admit, I say, that the conditions of life and practice are hard; harder, much harder, than we as students can possibly know. But I cannot remember when the prospect of hardship became matter for despair. You have been accused, Sir, of youth; I must plead guilty to the same charge; and I think it must indeed have gone hardly with some of your correspondents, if they have reaped from their practice only the worst fruits of an unhappy old age—a sour and complaining outlook on life. Long may you and I, Sir, remain young, if that is the inevitable picture of "the last of life, for which the first was made."

I am well aware that the men who chant such dirges in the sad twilight of their profession may laugh at these remarks as being too deeply sunk in sentiment to be of any real value. Well, Sir, you have lately avowed yourself champion of a proper sentiment in the affairs of life; and I think that all who can distinguish sentiment from sentimentalism will be with you. Certainly, we would not wish to wear our hearts upon our sleeves for daws to peck at. These are matters which we, very rightly, are somewhat diffident of bringing to the front; but they remain a great background to all our opinions and motives; and when opinions and motives are in the question, we must even rouse ourselves to show that we go, and shall go, unashamed of sentiment.

For, as Mr. Paget has reminded us, and as I think we greatly need to be reminded, "the essential qualities of the doctor's life are not affected by medical politics, nor by democracy, nor by any amount of National Insurance Bills." Let us by all means oppose the Bill if we disagree with its principles or its details; let us organize, let us fight, let us strain and sweat for reform. Sir, I know little enough of practice; but I am sure that the prospects of practice cannot be such as to make us traitors to a profession and a life which, if it has more hardships than all others, has at least as many compensations as they, which its members in former times have counted, and which may surely still by our even more vivid and variegated times be counted, as quite the finest in the world.—I am, Sir, yours sincerely,

R.

Guy's Hospital,
October 1st, 1911.

The Hospital Pharmacopœia.

Dear Sir,—In your issue of the 16th inst. I notice that the Medical Committee are revising the Hospital Pharmacopœia.

The subject of pharmacy and dispensing is full of interest, and I venture to call your attention to a few suggestions that occurred to me when doing the hospital appointments. I am firmly convinced that these subjects, so important in practice, do not meet with the necessary appreciation at the hands of the Examining Boards or of those who regulate the curriculum.

The consideration of the compatibility alone of oleoresins, gums, oils, alkaloids, and coal tar products with other drugs, or with each other, is absolutely the bugbear of the newly qualified, who is usually reticent to write a useful prescription. The little preparation necessary for the Conjoint and M.B. examinations is undoubtedly apt to make these subjects appear less important than several others, but is it really so? I well remember seeing my H.S. ordering mist. acidi co. with mist. sodii salicyl., an obvious error; and could mention several cases of over-doses and incompatibilities prescribed by the newly qualified man, and even those in practice for years, and this experience is surely familiar to most of us.

I have gained the impression, and I think rightly, that in provincial towns you invariably find that a Guy's man, if present, is doing most of the surgery, and whilst many hold their own in the domain of medicine as a G.P. there is need for improvement and progress, which inevitably meets with success. We cannot but admit that personality plays a large part in the success of a

General Practitioner, shall we say 40 per cent., ability *may* count 30 per cent., while diplomacy and luck share the balance.

So long as things remain as they are, and such a small part of our time is necessary to devote to the study of dispensing and prescribing, we have two courses open: the first one is to rely on the hospital pharmacopœia and, later, to prescribe from it, those misturæ, etc., which our experience here proves most suitable for certain diseases and ailments; or, secondly, to rely on the manufacturing chemist, who supplies concentrated mixtures, and enables us to end our responsibility by diluting them one in eight for an adult dose. The same mixtures are supplied to other medical men, and we naturally get into a groove, losing sight of the individual requirements of each patient in the treatment of all the minor ailments which, by far, make up the greater part of our practice. This pernicious habit is growing, and a vast amount of interest in our work is lost, while many subsequent disappointments in obtaining the relief and cure of patients results.

I would suggest that the hospital pharmacopœia should be less like the B.P., which is the official standard, and easily referred to. The list of misturæ should be greatly extended, at the same time making them less scientific in many cases, but much more practical. The G.H.P. would then be of considerable value, and more interest would be centred in the art of prescribing. As an instance to prove my contention: let us take mist. bismuthi, which is seldom prescribed alone. It may be scientific but certainly is not practical enough. In the majority of cases where bismuth is necessary, increased intestinal peristalsis is beneficial, and alkalies are indicated, and usually a stimulant and stomachic are most useful. To embrace these properties we should employ a prescription similar to the following:—

℞	Bismuthi subnit.	gr. x.
	Sodii Bicarb.	gr. x.
	Tinc. Nuc. Vom.	♏ vi.
	Sp Am. Arom.	♏ xx.
	Aq., ad.	℥ i.

Further practical points present themselves from the pharmacists' standpoint in this prescription. It will be noticed that the $NaHCO_3$ effervesces with the bismuth subnitrate, but the resulting salts are far more efficacious therapeutically than either bismuth-oxy-carbonate or nitrate. Again, why is bismuth always suspended, it is quite unnecessary owing to the fine quality of bismuth salts now obtainable in commerce. Bismuth is said to have radio active energy, and, if so, the longer it is in contact with a gastric ulcer, or inflamed mucous membrane, the better. I have obtained better results when not suspended, there is no difficulty in pouring out, and it diffuses much more readily than when a gum is used.

At Out-Patients we see patients getting repeat medicine plus occasional additions, until P.O. means two mixtures, one liniment, box of pills, an ointment, a jar of malt, a few aspirin tablets, and, perhaps, formalin ditto; a practice certainly not economical, and easily avoided.

I should like to suggest the addition of a mist. acidi co. cathart and mist. gent. and sodæ cathart by adding sodium sulphate, gr. xx., to the usual mixtures. Magnesium sulphate is incompatible with mist. gent. and sodæ, especially in hot weather. Most cases of dyspepsia are aggravated, if not caused by constipation, and better results are obtained by the above addition. Take another instance, mist. guaiacol is excellent in phthisis and osteo arthritis, and is much improved by the addition of potassium iodide, a drug useful for both diseases, as also for fibrositis; and, lastly, I might mention that there are no urethral injections in the pharmacopœia. The various strengths of protargol, potas. permang. or zinci sulpho-carb. found most useful, would be helpful to us all, and the advantage taken of impressing on students that they should prescribe the injections double strength, with directions to dilute with equal parts of hot water, a practical point they will find most useful. It would be easy to suggest other alterations, and many useful formulæ, but I shall not presume to do so beyond those given above to prove my point. To meet the problem of incompatibility I think a class for post graduate or senior men would be appreciated, and enable Guy's to send us out better fitted for our responsibilities, and would therefore be better for the interests of the hospital.

Another alternative might be a bold step, but is deserving of careful thought, not because our teaching here is deficient, for it is not, as the pass list at the examinations prove, but owing to the curriculum being based on wrong principles. It is to arrange with the Pharmaceutical Society for Guy's men to attend a special course following out the Society's syllabus. We should be all the better for it, and it may eventually lead to negotiations for the promotion of less prescribing by the pharmacists, and less dispensing by medical men, an object much desired.—Yours, etc.,

Guy's Hospital, T. F. BROWN.
September 30th, 1911.

Clubs' Union Year Book.

Dear Sir,—I have just had sent to me the latest edition of the Guy's Hospital Clubs' Union Year Book. I remember when the Clubs' Union was started that all old Guy's men were written to and asked to become life members by paying some share in support of the Union. We were told that a directory of old Guy's men would be published so that we could easily find out where our old friends were practising, and could discover whether in any particular district there was a Guy's man living to whom one might introduce a patient. The first directory was admittedly incomplete, many addresses were missing, very few Christian names were given, and there was nothing to indicate the time when a man was a student at the hospital nor what appointments he held there or elsewhere, or what qualifications he had obtained.

It is now twenty years since the first directory was published, and none of these defects have been remedied.

In some respects the list is even more unsatisfactory than when it was first started, as there are many more names now without addresses, some of whose owners one surmises may be dead. I have seen such lists published by other medical schools, in some cases without any charge being made for the insertion of the old student's name, which are much more complete and satisfactory in every way.

I am writing to ask you, Sir, to use your influence with the committee to try and persuade them to celebrate the coming of age of the Clubs' Union by revising and amplifying the directory of old Guy's men so as to make it a real bond of union between past and present members of the Clubs' Union.—I am, yours obediently,

LIFE MEMBER GUY'S CLUBS' UNION.

[This letter is referred to in Passim.—Ed., G.H.G.]

Medical Revolution.

Sir,—In continuation of my note of September 15th, I should like, with your permission, to offer a suggestion towards constructive reform. To make my purpose clear, I shall first restate my main criticism of the present method of medical science. When the specific word "disease" and the word "diagnosis" are applied to such definite conceptions as typhoid fever, lead-poisoning, heat-stroke, and the like, they are in no sense misleading; they stand, then, always for definite knowledge, for correlated cause and effect. But when the same words are applied, without any warning or reservation, to such utterly indefinite conceptions as Hodgkin's disease, Graves' disease, and insular sclerosis, they become grossly misleading, because they do not then stand for definite knowledge, because they no longer represent correlated cause and effect. There is not to be found in any other branch of science even the semblance of a parallel to such a method as this. I trust there is no room for misunderstanding about this central position; I conclude, from the silence with which it has been received, that it cannot be seriously assailed.

But the teaching of medicine must be carried on, and the question is, how this new situation is to be met. Such recurrent conditions as are represented by Bright's disease, Hodgkin's disease, Graves' disease, myxœdema, diabetes, insular sclerosis, spastic paraplegia, glaucoma, gastric ulcer, gastrostaxis, cancer, sarcoma, angina pectoris, lumbago, psoriasis, chlorosis, pernicious anæmia, and hosts of others, must be described to the student, they must be spoken of under some generic term. The time when knowledge of causation was so scanty that the same words, "disease" and "diagnosis," could be applied indiscriminately, in honest ignorance, to the members of two wholly distinct categories of conceptions is clearly past and gone. The term that I have been using up till now, "spurious disease," is a term of negation, it indicates destructive criticism only. We require, for constructive reform, a word that shall describe the conceptions derived from series of cases of indeterminate causation, and shall at the same time differentiate them absolutely from the "known series," from the true diseases.

There is a word, "dyscrasia," that was used by Virchow and his contemporaries as synonymous with the specific word disease, but which has dropped out of our vocabulary. The reintroduction of this word, to be applied to "spurious diseases," that is, to all conceptions at present called diseases, but which are not derived from series of symptom-groups of determinate and similar causation, could not cause any confusion, and it would enable the teacher to draw for the student a sharp line, all through the science of medicine, between what is known and what is not known of the causation of disease. The importance of doing this is so obvious as to require no further mention.

If there really is anything to be said in defence of the present custom of using the words "disease" and "diagnosis" in two wholly different senses, I shall be curious to hear it. Otherwise, it seems to me that my suggestion, or something like it, demands the consideration of those who take the responsibility of teaching the science of medicine.—Yours, etc.,

SYDNEY W. MacILWAINE.

To Dental Students.

Dear Mr. Editor,—May I, through your columns, thank all the students in the Dental Department for the very handsome rose-bowl which they presented to me on the occasion of my marriage. Most of the men were present when the rose-bowl was given to me, but to those who were not able to be there I tender my sincere thanks.—I remain, yours truly,

H. C. MALLISON.

Change of Address.

H. F. Lancaster, M.D., from 154, Westbourne Terrace, to 198, Gloucester Terrace, Hyde Park, W.

John D. Malcolm, M.D., C.M., F.R.C.S., from 13, Portman Street, to 33, Wimpole Street, W.

F. J. Nicholls, M.B., B.C., from 13, Cavendish Place, to 8, Devonshire Place, Eastbourne.

B. Gore Reynolds, from "Silverhowe," College Park, N.W., to "Oakfield," Montgomery.

V. T. P. Webster, from Guy's Hospital, to Brynglas, Merthyr Tydvil, S. Wales.

Mr. R. P. Rowlands, from 10, Mansfield Street, back to 12, Queen Anne Street, Cavendish Square, W. Telephone, Paddington 1017 (unchanged).

D. Wilberforce Smith, M.B., B.S., F.R.C.S., from 14, Stratford Place, W., to 79, Wimpole Street, W.

Dr. H. C. Cameron, from 6, St. Thomas's Street, to 7, Devonshire Place, Upper Wimpole Street. Telephone, Hop 2087.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Two Cases of Bilateral Temporal Hemianopia, exhibiting Symptoms of Insufficiency of Pituitary Secretion.

ABSTRACT OF A CLINICAL LECTURE
By Dr. H. L. EASON.

Bilateral temporal hemianopia is the term applied to the condition in which the temporal half of the field of vision is absent on both sides, it following as a necessary corollary that the nerve fibres supplying the nasal halves of both retinæ are affected.

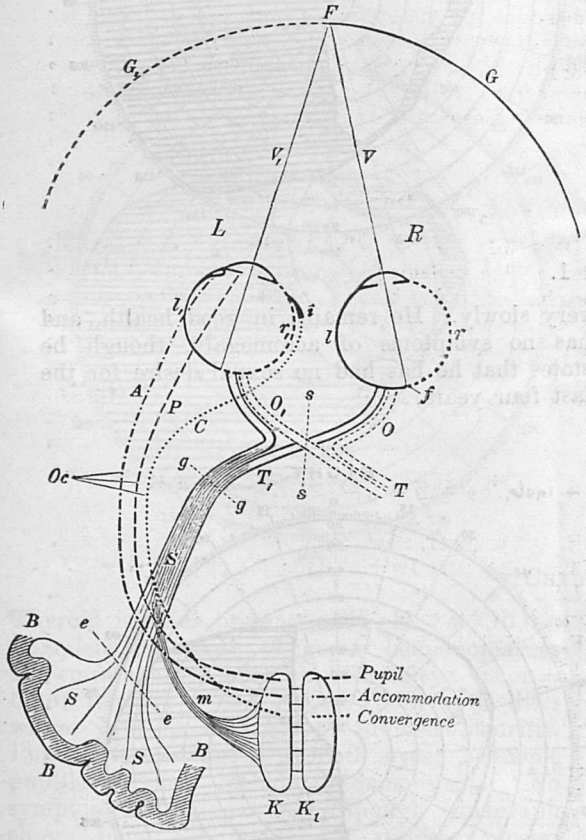


Fig. I.

A glance at the diagram (Fig. I.) will show that these fibres decussate at the chiasm and that the only site for a single lesion to cause the condition is the chiasm itself. Section of the chiasm in an antero-posterior axis (*ss*) produce complete bilateral temporal hemianopia, with loss of the pupil reflex for light when the blind side of the field is illuminated, the light reflex remaining for the unaffected portions of the visual field (the hemi-opic pupillary reflex).

With rare exceptions, the only causes of bilateral temporal hemianopia are enlargements or tumours of the pituitary body, which is situated immediately behind and below the optic chiasm, and dilatations of the sphenoidal sinus or sinuses, which are immediately in front of and below the chiasm, separated only by a thin sheet of bone. In pressure on the chiasm by pituitary tumours, the macular fibres of both optic nerves are first affected, causing central or paracentral scotomata; later, the chiasm is flattened out by the tumour and the two sides separated from each other, the decussating fibres are destroyed in the process, and the bilateral hemianopia becomes complete.

The two cases chosen for the illustration of to-day's lecture have both been under my care in the hospital, the first five years ago, and the second within the last week or two.

Case 1.—D. B., aged 30 years, an actor, was admitted into Guy's Hospital on March 22nd, 1906, for defective vision. For the three previous months he had noticed that the sight in both eyes was failing. He attended several hospitals, and was told that he was suffering from optic atrophy; he was generally treated with mercury or iodides, but his vision became progressively worse. He could give no reason for the failure of vision, and denied any history of venereal disease. He suffered considerably from headache, chiefly frontal. In appearance he was dark, short, and rather stout, and apparently in good health, with no signs of acromegaly.

His vision was so poor that he could not see to count fingers held close in front of him, and he had to be led about. The pupils were dilated and did not react to light, and both discs were white, with no signs of previous neuritis. It was impossible to test his field of vision with the perimeter, but on testing him with lights and large objects, it was apparent that he had bilateral temporal hemianopia, with very defective vision even on the seeing side of both visual fields. In view of this symptom he was given extract of thyroid gland, gr. v., three times a day commencing on March 27th. The mercurial treatment he was receiving when he came under my care was discontinued. By April 2nd (only six days) his vision had improved so much that the fields of vision could be tested with the perimeter. (Chart 1.)

The improvement in vision was very rapid, and by April 26th vision had reached 6/6 in the right eye and 3/60 in the left. By May 8th the vision had still further improved to 6/60 in the left eye, and the right field of vision was still enlarging. (Charts 2 and 3.)

In March of this year (five years later) his fields were slightly increased. From time to time he leaves off the thyroid extract, but after a little while gets headaches and recommences it. The vision remains normal in the right eye, but the vision in the left appears to be failing

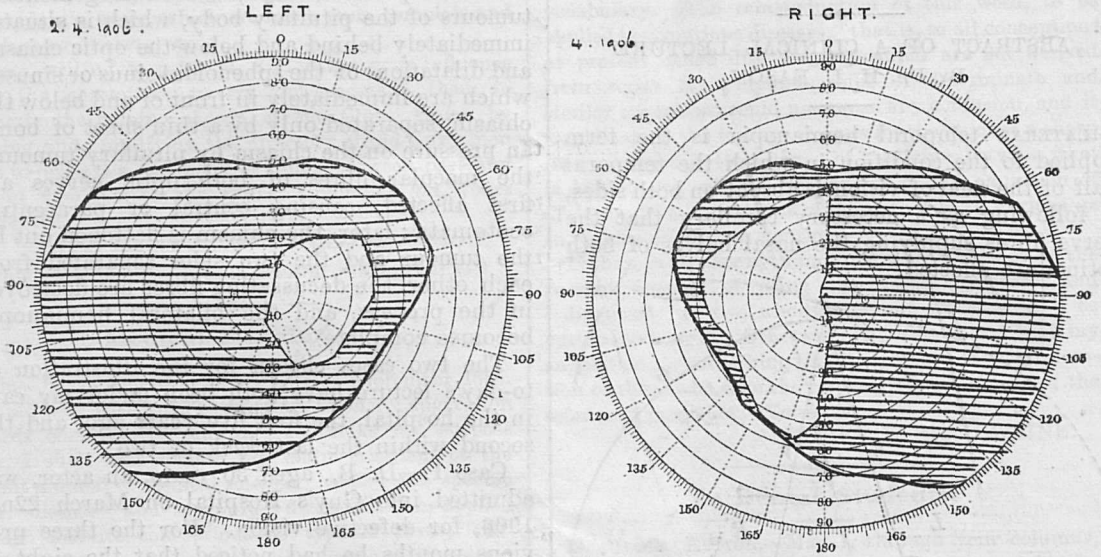


Chart 1.

The patient was then discharged, and still continued to take thyroid extract. In November, 1906, the right eye had vision =6/6, and a full field, though the disc remained white. (Chart 4.)

very slowly. He remains in good health, and has no symptoms of acromegaly, though he states that he has had no sexual desire for the last four years.

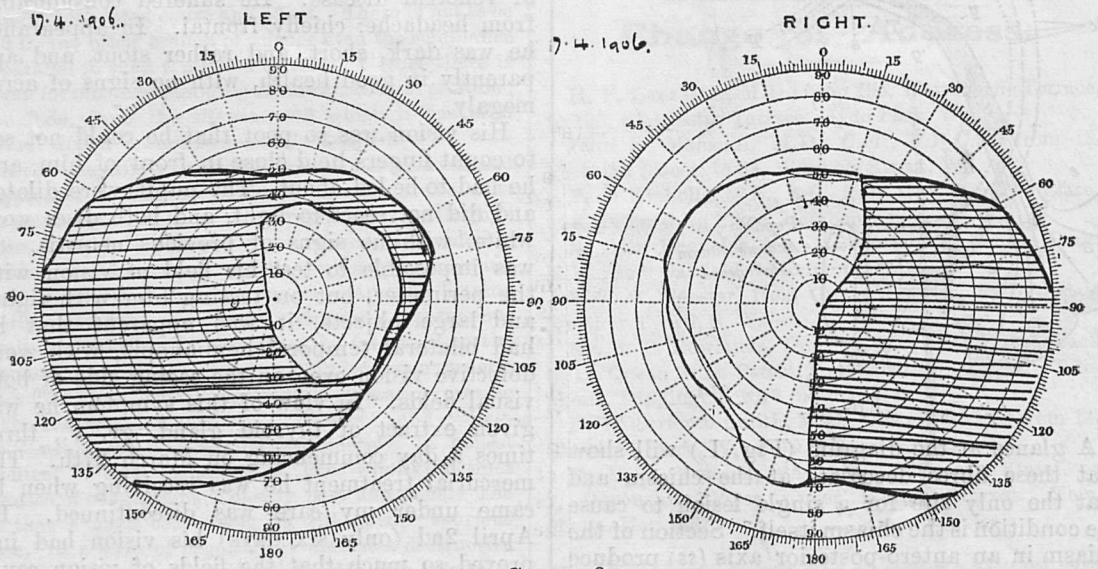


Chart 2.

Case 2.—E. W., aged 24 years, butcher, was admitted to Guy's Hospital on March 25th, 1911. Twelve months ago he first noticed failure of sight in the outer half of each field of vision. As far as he can remember the failure seemed to come on suddenly, and has not progressed much in the last year. He has constant vertical headache, and there is a history of some indefinite fits about six months ago. There is no albuminuria, polyuria, or glycosuria. He is small and undeveloped for his age. There is no hair on his face; the skin is dry and the hair is dry and scanty; testicles normal; very little pubic hair; sensation normal. He is inclined to be lethargic and sleepy. His complexion is cyanosed or dusky, but a blood examination showed nothing abnormal. Knee-jerks absent.

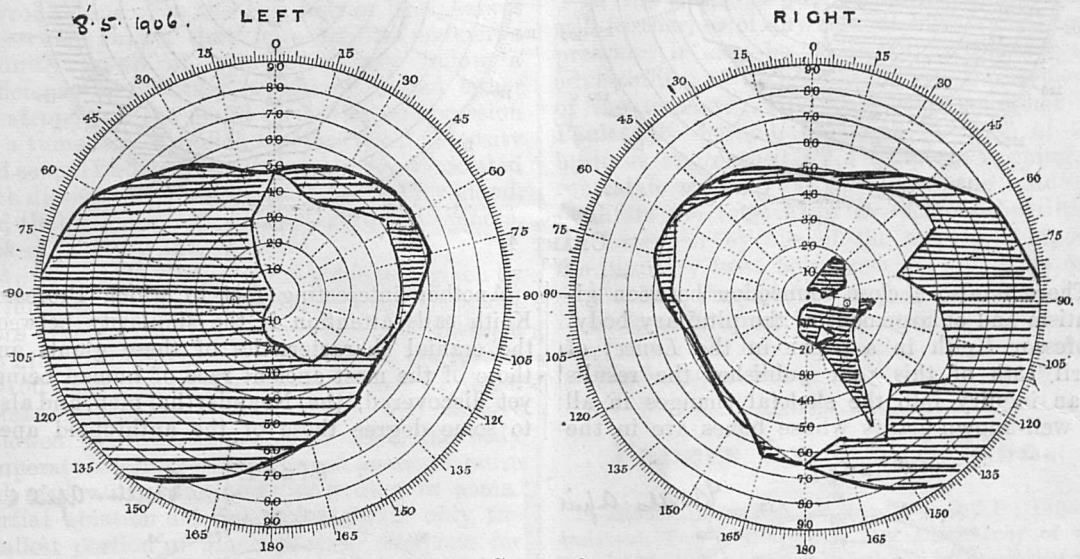


Chart 3.

Thyroid isthmus present. Weight 7 st. 10 lbs. Complete bilateral temporal hemianopia as shown in chart (Chart 5). Right eye vision = 6/36; left eye vision = 6/9. Both optic discs white, with no evidence of previous neuritis. Pupil reflex sluggish in both eyes; hemiopic pupillary reflex difficult to demonstrate. No symptoms of acromegaly, though skiagraph shows some enlargement of pituitary fossa. Nasal cavities normal. Wassermann reaction positive. Shortly after admission to the hospital the patient's headache became much worse; he refused food and was at times almost stuporose. I shall defer any mention of the treatment of this case till we have considered briefly our present knowledge of the constitution and functions of the pituitary body.

The Pituitary Body.—The pituitary body is usually from 3 to 6 decigrammes in weight, and consists of anterior and posterior portions, together with a stem or infundibulum. The anterior or glandular part is composed of a connective tissue stroma in which are embedded rounded or elongated masses of epithelial cells or acini closely packed together. The nerve elements are derived from the carotid sympathetic plexus. At the periphery of the lobe, and especially in the boundary zone between the two lobes, the acini are often dilated, lined with cubical cells, and filled with what appears to be a colloid substance. The structure of the small posterior part appears to be that of neuroglia. In the boundary zone between the two lobes the vessels are particularly numerous, and in man it is a bilobed cavity lined with ciliated cylindrical epithelium.

In man the pituitary body has a two-fold origin. The anterior glandular part originates in a diverticulum from the primitive oral cavity. The posterior lobe is formed by an invagination from the floor of the primary mid-brain.

Our knowledge of the pathology of the pituitary body only goes back to about 1880, when Marie first described the disease known as acromegaly, with its characteristic enlargement of the bones of the face, especially the lower jaw, and the spade-like enlargement of the hands and of the feet.

A large proportion of patients suffering from acromegaly have bitemporal hemianopia, and post-mortem enlargement of the pituitary body

is nearly always found. The thyroid gland is sometimes atrophied and sometimes hypertrophied. Enlargement of the pituitary body also follows atrophy of the thyroid gland or its excision.

museums of London, Edinburgh, and Dublin. Nearly every skeleton affords good evidence that the patient suffered from acromegaly, and that there was also great enlargement of the pituitary fossa owing to enlargement of the pituitary gland.

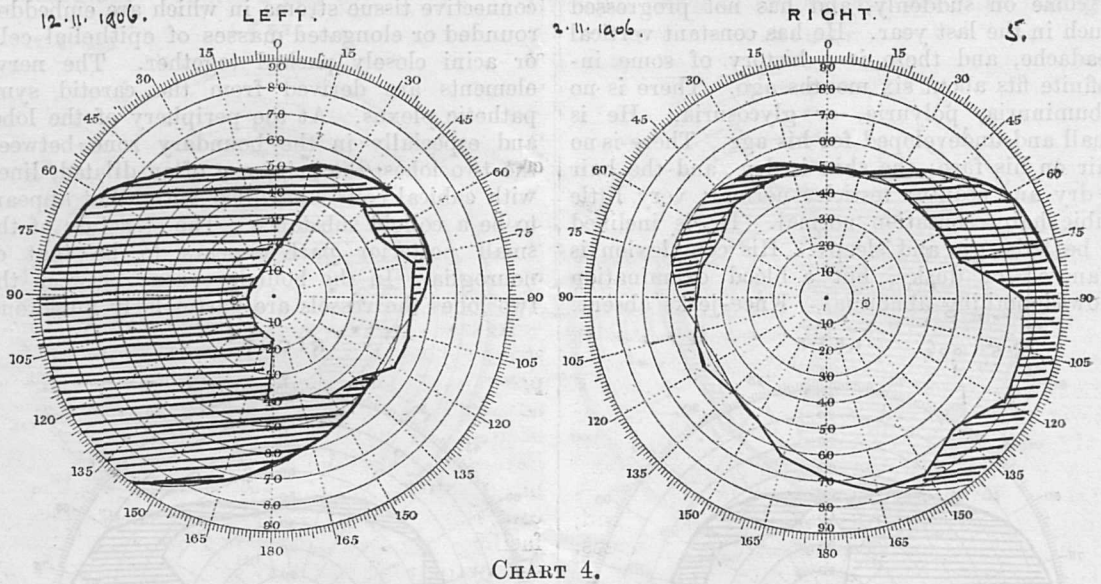


Chart 4.

There is also a close connection between gigantism and enlargement of the pituitary body. Professor Keith in a paper in the *Lancet* of April 15th of this year publishes the results of an inquiry into the skeletal changes in all the well-known giants whose bones are in the

Another interesting fact to which Professor Keith calls attention is the similarity between the cranial characteristics of these giants and those of the most ancient race of human beings yet discovered, the Neanderthal men, and also, to some degree those of the anthropoid apes.

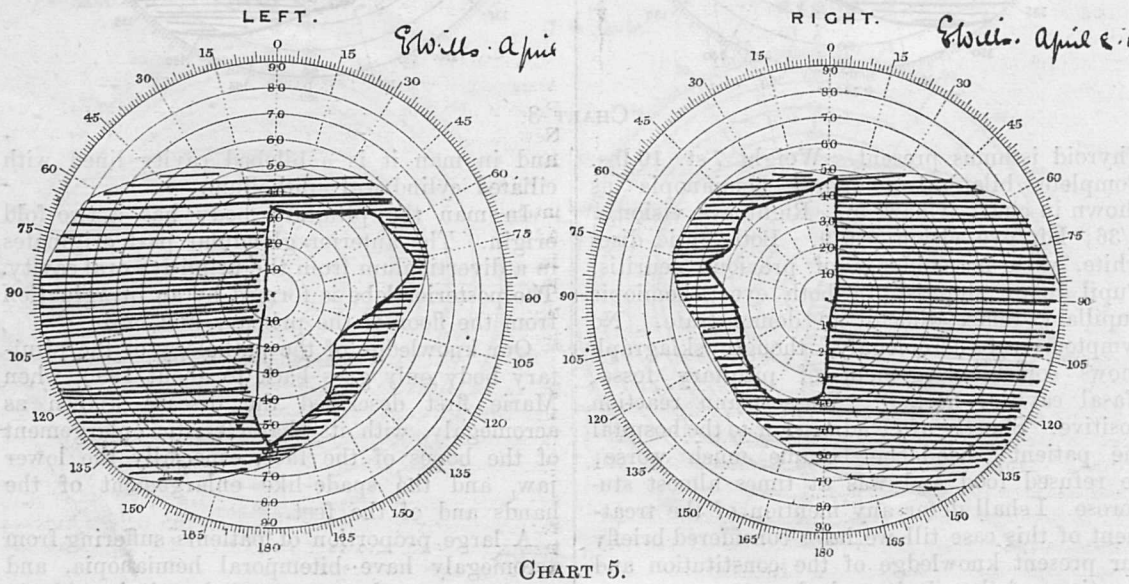


Chart 5.

It seems possible, therefore, that though gigantism and acromegaly are now so rare that they are considered diseased conditions, they may be, to some extent, atavistic in origin and examples of reversion to a primitive type.

The function of the pituitary body seems, therefore, to be analogous to those of the other ductless glands, and just as excessive thyroid secretion may cause exophthalmic goitre, so excessive secretion by the pituitary gland may give rise to gigantism or acromegaly, or a combination of both.

But a general disturbance of the body may not only result from excessive secretion by a ductless gland, but also from a diminished secretion, as for example, cretinism and myxœdema in atrophy or deficiency of the thyroid gland. In the last four or five years it has been shown that in a similar manner a definite group of symptoms may follow a deficiency in pituitary secretion, caused either by atrophy of the gland or by its compression by a tumour. Fröhlich has described adiposity and sexual impotence as being always associated with diminished secretion of the pituitary gland, and the patients may also suffer from sleepiness, lack of memory and cyanosis.

An admirable review of the subject is given by Cushing in the Annals of Surgery for 1909, and more recently, in the Johns Hopkins Bulletin for May, 1910, there is an account of the results of 100 excisions of the pituitary body in dogs. Total extirpation of the gland was usually followed by death in about 11 days, the body temperature falling with the blood pressure, pulse and respiration rate, and life ending in coma. Partial ablation did not cause death, only the smallest portion of gland proving adequate for the maintenance of life; but the most constant phenomena were adiposity with dystrophy of the sexual organs in adults, and persistent sexual infantilism in animals operated on before adolescence. More or less often cutaneous changes were present, or polyuria, glycosuria low temperature, and a lowered resistance to infection and injury.

Acromegaly and gigantism may be said, therefore, to be the result of *hyperpituitarism* or excessive pituitary secretion, and adiposity, cyanosis, loss of memory, and sexual impotence, often associated with bilateral temporal hemianopia, the result of *hypopituitarism* or diminished pituitary secretion.

It is difficult to say with any certainty if the patient whose case I related first is a case of hypopituitarism, though his hemianopia and sexual inefficiency are very suggestive. He came under my care before the condition had been described in any publication, and his treatment with thyroid extract, though empirical, was eminently successful. Five years later he is still very well, with normal vision in the left eye, and no further treatment seems necessary. His case must, of necessity, remain an enigma.

The second case, however, exhibits all the general symptoms of diminished pituitary secretion, and for that reason he has been given extract of the anterior lobe of the pituitary body for some weeks. His vision has not improved, but his headache has practically disappeared; he is brighter and less sleepy, and his appetite has improved considerably.*

In the event of the patient's vision failing still further, or of any sign of intracranial compression, it may be necessary to consider the advisability of an operation for the removal of the tumour. This may be done either by Paulesco's method, in which the base of the brain is approached by a temporal opening, a contralateral temporal opening being made to facilitate the removal of the tumour by tilting the brain, or by one of the anterior methods, the pituitary fossa being reached along the roof of the nose through the accessory sinuses.

As long however, as the patient remains as well as he is, both in vision and in general health, no operation is indicated.

Papers by Guy's Men.

N. Stuart Carruthers, M.R.C.S., L.R.C.P., Clinical Assistant, Guy's Hospital: The Inefficiency of the Present Methods of Saline Infusion. A Description of a New Method.—*British Medical Journal*, 30th September, 1911.

Edwin Goodall, M.D., B.S., F.R.C.P., Medical Superintendent, City of Cardiff Mental Hospital: A Presidential Address on The Possible Toxic Origin of some kinds of Insanity. Delivered in the Section of Neurology and Psychological Medicine of the British Medical Association.—*Lancet* and *British Medical Journal*, 30th September, 1911.

Cecil Price Jones, M.B.: Observations on the Changes produced in the Blood and Bone Marrow by Hæmorrhage and Blood Destruction (Part II.), from the Pathological Department, Guy's Hospital.—*Journal of Pathology and Bacteriology, No.* 1, *Vol.* 16.

* This patient was discharged in July, and has recently (early in October) been readmitted for further treatment with pituitary extract, as his headache has again become troublesome.

R. Lawford Knaggs, M.C., F.R.C.S., Professor of Surgery to University of Leeds, Surgeon to Leeds General Infirmary: Strangulation by Volvulus in an Abnormal Sac lying within the General Peritoneal Cavity.—*Lancet*, 7th October, 1911.

G. Norman Meachen, M.D., B.S., M.R.C.P., Physician to Blackfriars Skin Hospital and in charge Skin Department, Prince of Wales General Hospital: Profuse Sweating.—*The Practitioner*, October, 1911.

L. A. Parry, B.S., F.R.C.S., Assistant Surgeon to Royal Alexandra Hospital for Children, Brighton: A Case of Erysipelas Complicated with Meningitis following an Intra-Nasal Operation. Recovery.—*Lancet*, 30th September, 1911.

W. J. Tyson, M.D., F.R.C.P., Hon. Physician Royal Victoria Hospital, Folkestone: The Mania following Pneumonia.—*British Medical Journal*, 7th October, 1911.

W. Hale White, M.D., F.R.C.P., Senior Physician, Guy's Hospital: Diagnosis of Fever without Physical Signs. Read at 79th Annual Meeting of the B. M. A.—*British Medical Journal*, 7th October, 1911.

D. Wilberforce Smith, M.B., B.S., F.R.C.S.: Obstetrical-Gynæcological Studies in Berlin.—*The Hospital*, 30th September, 1911.

Appointments.

Naval and Military.

Fleet-Surgeon E. R. D. Fasken, R.N., to the *Achilles*, 9th October, 1911.

Surgeon H. E. Perkins, R.N., to the *Hibernia*, 10th October, 1911.

Major C. R. Evans, R.A.M.C., has been detailed for a tour of service in the Maltese Command.

Captain A. J. Hull, R.A.M.C., has been appointed for duty in London District.

Lieutenant H. Stott, I.M.S., has been appointed Specialist in Midwifery and Diseases of Women and Children for Burma Division.

Territorial Force.

R.A.M.C. First London Field Ambulance. Lieut. A. D. J. B. Williams (from the list of Officers attached to Units other than Medical Units) to be Lieutenant, 7th September, 1911.

Civil.

R. C. Lawry, M.R.C.S., L.R.C.P., is appointed Medical Officer of Health to the Borough of Penzance.

Births.

BENET.—On September 24th, at Jubbulpore, India, the wife of Captain A. M. Benet, R.A.M.C., of a son.

SMALLEY.—On October 5th, at Suva, Fiji Islands, the wife of James Thornton Smalley, M.R.C.S. Eng., L.R.C.P. Lond., of a daughter. (By cable.)

Death.

DOWSETT.—On September 26th, Guy Webb, the dearly loved son of Ernest and Ethel Dowsett, of St. Dunstan's, Twickenham, and 1, Gloucester Street, Portman Square, W. Aged 6 months.

STEVENSON, LEADER HENRY, M.D. Lond., on August 11th. Aged 63 years.

A Case Illustrating the connection between Gall-stones and the Ileal Kink of Chronic Intestinal Stasis.

By J. B. HANCE.

Most of the readers of the Gazette are familiar with the obstruction which develops in the last few inches of the ileum in consequence of the assumption of the erect posture.

The presence of this interference with the out-flow of the contents of the ileum is very common, though it varies considerably in degree.

The obstruction usually results from the development of an acquired or supplemental mesentery in the under surface of the mesentery of the ileum. This produces a torsion of that organ as well as an angular kink.

It not rarely exists in consequence of an anchoring of the appendix to the inner side of the cæcum. This kinked tube then passes upwards and inwards behind the end of the ileum, and controls the passage of material through this portion of the gut. Obstruction from an appendix turning up in this manner may be accompanied by an acquired band in the mesentery, and accentuated by it.

Again, in very thin subjects in whom the cæcum has become fixed in the iliac fossa, the contents of the ileum may, by collecting in the pelvis, exert such a pressure on the portion of that organ which passes over the brim of the pelvis, as to interfere materially with the passage of fæces through it.

The collection of material in the small intestine, consequent on the interference with its passage through the ileum into the cæcum, causes its terminal portion to sag into the true pelvis, and exerts a pull or traction upon the jejunum and upper part of the small intestine, with a consequent kinking of the already acute duodeno-jejunal flexure. As a result, the duodenum tends to distend in consquence of its contents being dammed back by the kinked flexure. This distention particularly affects the first part, it being the only portion of the organ which is not bound down by the parietal peritoneum; inflammatory changes of varying degrees may also develop in the mucous membrane.

The exit of the gastric contents is also impeded by this duodenal dilatation, producing gastric distention, and inflammation of the mucous membrane at the points of greatest stress.

Besides this, the obstruction at the end of the ileum produces an elevation of the level of organisms in the small intestine, and, assisted by the distention and changes in the duodenum, renders easy the infection of the pancreatic and biliary ducts; so producing, in the first instance, pancreatitis and gall-stones, and, later, cancer of the pancreas and biliary ducts.

The case referred to illustrates this association very well.

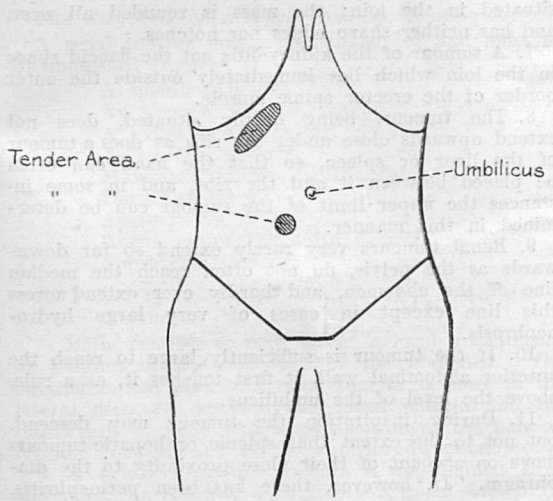
S. N., æt. 45, butcher, was admitted into Larazus ward under Mr. Lane, on 25th September, 1911. His family history is unimportant. He had "pneumonia" seven years ago, but one medical man certified this attack as typhoid fever. Two years ago, patient had an attack of pain, which woke him up in the middle of the night. The pain started in the epigastrium, in the mid-line, and subsequently tended to shoot horizontally round his body, at the level of the upper part of his abdomen, which, at the time, was extremely tender.

This attack was the first of a series which came on suddenly without any premonitory symptoms culminating in the four weeks previous to admission, during which period he had three attacks.

Lately, he had noticed that he became slightly jaundiced during the attacks, his urine being dark, and his stools light in colour. He added, that shortly after his attacks he suffered from general cutaneous itching; but this latter symptom might or might not be unaccompanied by any attacks of pain.

On examination the abdomen moved well on respiration, and was not rigid. He was definitely tender in two places :—

1. The right hypochondriac region, opposite the tip of the costal cartilage; and



2. The right iliac region, about 1½ inches below and to the right of the umbilicus; a situation which, when tender on deep palpation, has been abundantly demonstrated in the operating theatre, to be associated with a kink in the ileum.

There were few signs of auto-intoxication; the hands were clammy, but not cold; there was no pigmentation, or headache; and patient, between attacks of pain, felt quite well and fit. Unfortunately, owing to a misapprehension, a purgative was administered soon after a bismuth meal, and the X-ray examination was accordingly stultified.

The abdomen was opened by an incision of sufficient length to enable the end of the ileum and the gall-bladder to be thoroughly explored. The cæcum and the end of the ileum were exposed in the wound, when a well-marked kink of the terminal loop of the ileum was demonstrated to all who were present at the operation.

The constriction was about 2½ inches from the ileo-cæcal junction; and the constricting agent, an abnormal peritoneal band thickening the mesentery of the terminal loop of the ileum, twisting and kinking the bowel at the same time. On exploring the gall-bladder it was seen to be enlarged, but not adherent, and, on puncturing it, countless small facetted calculi were removed.

The co-existence of a well-marked ileal kink and gall-stones, in a butcher, *i.e.*, a man who has constantly to be on his feet, would seem to indicate the manner in which chronic intestinal stasis plays a part in the ætiology of gall-stones, chronic pancreatitis, and other infective conditions of that neighbourhood.

A Case of Malaria from the Borough.

H. P., æt. 14, admitted to Addison Ward under Dr. Shaw on September 16th, for "rigors." Patient's mother and father, two brothers, and three sisters, were all alive and healthy at the time of admission. No members of the family had ever been abroad, or even out of London. Patient's father works at the Docks. His only previous illnesses were pharyngitis three months before admission, and an attack of diarrhœa during Thursday afternoon, September 14th.

Patient was perfectly well till September 14th. On this day, after returning home from a search for employment, he was seized with a fit of shivering at 12 p.m., which lasted half an hour. On the next day, September 15th, he was perfectly well till 1 p.m., when he had a similar attack of similar duration. The attack on the next day, September 16th, occurred at 2.15 p.m., on this day he was brought up to the hospital and was admitted.

On admission his temperature was 105·4°, pulse 132, and respirations 52. The only symptoms the patient complained of were a headache which he noticed shortly before the onset of the last rigor before admission, and some sweating at nights noticed only since the commencement of the rigors. No history could be obtained of any recent insect bites. Patient was a well-nourished boy with a brownish skin. The only abnormal signs discovered were some slight tenderness on the inner side of the biceps tendons, and also just below the right costal margin. The spleen could not be felt. The phenomenon of myœdema was noticed on percussion of the pectoral muscles.

On admission the patient was sponged and the temperature brought down to 99°. On the morning of September 17th patient's temperature fell as low as 96·4°, rising to 103° in the afternoon, the rigor taking place at 4 p.m. and lasting half an hour.

On the morning of September 18th, the patient's temperature fell to 96·6° rising to 102·2° in the afternoon, the rigor taking place at 4.15 p.m., and lasting half an hour.

On the morning of September 19th the patient's temperature fell to 97·4° rising to 105° in the afternoon, the rigor taking place at 4.15 p.m., and again lasting half an hour.

On the morning of September 20th, the patient's temperature fell to 97·6° rising to 105° in the afternoon, the rigor taking place at 5.25 p.m., and being of similar duration.

On September 18th, specimens of the patient's blood were taken; films showed the presence of the malarial parasite.

A film taken 22½ hours after a rigor and stained by Leishman's method showed the following forms:—

Hyaline forms.
Pigmented ring forms.
Pigmented forms.
Segmenting form.
Flagellate forms (microgametocyte).
Non-flagellate form (macrogamete), and segmenting form after destruction of the red corpuscle.

On September 20th, at 12 a m., the first dose of quinine was given, the prescription being as follows:—

℞ Quin. sulph. gr. v.
Ac. hydrobrom. dil. ɱxx.
Syr. aurantii, ʒss.
Aq. ad. ʒi. t.d.s.

Patient was put on to fish diet the next day (September 21st). The next day the rigor abated, but the temperature rose during the night to 100·8°.

On September 22nd the highest temperature recorded was 100°. In all cases the temperature was taken in the axilla. During the whole course of the fever the patient did not once complain of feeling ill.

On September 25th, the spleen which was felt for the first time on September 19th, was still palpable.

On September 20th blood films were also taken from all the members of the patient's family, but no malarial parasites were discovered in the specimens obtained.

From the quotidian character of the rigors, and from the appearance of the parasite, it appears certain that the infection was of the double tertian variety.

On September 29th the spleen could no longer be felt.

Dr. Boycott and Mr. Reynell lent valuable assistance in so far as blood examinations were concerned.

H. S.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

The Differential Diagnosis of Renal Enlargements.

By HERBERT FRENCH, M.D.

Physical Signs.

The physical signs that a renal tumour may give rise to are as follows:—

1. A slight or moderate enlargement does not cause any local fulness or prominence of the loin or abdomen.

2. A considerable enlargement may obliterate the hollow of the loin and even cause a fulness there.

3. A renal tumour enlarges in the anterior and lateral directions, so that it does not cause any marked bulging or prominence behind.

4. If the tumour attains a very large size it causes a marked bulging of the lateral and adjacent part of the anterior abdominal parietes between the costal margin and the iliac crest.

5. As the kidney enlarges, the colon is pushed forwards, and usually lies in front of it. In some cases, when the kidney is much enlarged, *e.g.*, in sarcoma, and the patient wastes so that the abdominal parietes become very thin, the colon, in the form of a cylindrical tumour, which varies in size and form from peristalsis, may be seen lying in front of it.

6. Bimanual palpation reveals a tumour deeply situated in the loin; the mass is rounded all over, and has neither sharp edges nor notches.

7. A tumour of the kidney fills out the flaccid space in the loin which lies immediately outside the outer border of the erector spinæ muscle.

8. The tumour, being deeply situated, does not extend upwards close under the ribs as does a tumour of the liver or spleen, so that the hand can often be placed between it and the ribs, and in some instances the upper limit of the tumour can be determined in this manner.

9. Renal tumours very rarely extend so far downwards as the pelvis, do not often reach the median line of the abdomen, and hardly ever extend across this line except in cases of very large hydronephrosis.

10. If the tumour is sufficiently large to reach the anterior abdominal wall, it first touches it, as a rule, above the level of the umbilicus.

11. During inspiration the tumour may descend, but not to the extent that splenic or hepatic tumours move on account of their close proximity to the diaphragm. If, however, there has been perinephritis, the kidney may become firmly fixed to adjacent parts, and no downward movement takes place on inspiration.

12. The colon, if empty, may be felt as a soft cylindrical structure or hard core lying on the anterior surface of the tumour. It may be rolled from side to side, and may be felt to contract and relax from time to time.

13. On palpating the kidney, a feeling of nausea is often produced, and this may be noticed by the patient during the examination of a renal tumour.

14. On account of the colon being pushed forwards and lying in front of the tumour, percussion over the anterior surface usually yields a resonant note.

15. A right renal tumour sometimes, however, pushes the colon downwards and to the inner side as far as or even across the median line of the abdomen. If

the tumour, also, is very large, the colon may be similarly displaced, and in consequence there is dulness on percussion. Unless the enlargement is enormous, there is usually a band of resonance between it and the hepatic or splenic dulness.

16. Again, on account of the displacement of the colon forwards, the percussion note in the loin is no longer resonant, but dull, as the kidney tumour has occupied the position which is normally taken by the resonant colon.

17. If the tumour is very large or if, for example, a large malignant growth develops from the upper part of the kidney, it may become attached to the liver and become indistinguishable from it.

18. As a result of a large tumour of the left kidney varicocele of this side may be produced.

19. Hæmaturia, pyuria, or albuminuria do not necessarily accompany renal tumours; if, however, they are associated with a tumour giving the physical signs of a renal enlargement, they are valuable adjuncts in forming a correct diagnosis as to the nature of the tumour.

Distinct fluctuation may be obtained on palpation in many cases if the enlargement is due to hydronephrosis, pyonephrosis, hydatid, or advanced tuberculous disease.

Definite nodules may be sometimes felt in the tumour in cases of cystic and malignant disease.

The tumour may be tender on palpation in cases of pyonephrosis, abscess, infarcts, and malignant disease.

The diagnosis of a renal from some other tumour.

A renal tumour may be mistaken for and must be distinguished from:—

A splenic tumour.
An hepatic tumour.
A gall-bladder tumour.
An ovarian tumour.
Malignant growth of the colon.
Impacted fæces.
Appendicitis.
Aneurysm of the aorta.
Suprarenal tumour.

A. *Points of distinction between a left renal and a splenic tumour:—*

a. Both conditions may cause a local prominence or bulging of the left side of the abdomen. The bulging in the case of a renal tumour is more in the lateral direction between the costal margin and the iliac crest, whereas with a splenic tumour the bulging is more forward and in the anterior direction.

b. A splenic tumour presents a well-defined edge and notch or notches, as a rule. A renal tumour is rounded and never has a sharp edge.

c. A splenic tumour moves freely downwards when the patient takes a deep breath on account of its close relationship to the diaphragm. A renal tumour may move during inspiration, but not to the same extent.

d. A splenic tumour lies close under the abdominal wall. A renal tumour is deeply situated in the loin, and does not approximate closely to the abdominal parietes unless it is very large.

e. A splenic tumour comes down close under the ribs, so that the hand cannot be placed between it and the costal margin. A renal tumour slopes away towards the costal margin, and the hand can often be placed between it and the costal margin, and in some cases its upper limit may be thus determined.

f. Posteriorly a splenic tumour does not fill out the loin, and the space outside the erector spinæ is quite flaccid. A renal tumour fills out the loin and the space outside the erector spinæ muscle is firm and resistant.

g. A splenic tumour lies so close to the abdominal wall that there is no intestine in front of it. As a renal tumour enlarges it pushes the colon in front of it, and sometimes it may be seen and felt lying over the anterior surface of the tumour.

h. A splenic tumour is dull to percussion anteriorly, whereas a resonant percussion note is usually obtained over the front of a renal tumour.

i. The loin is usually resonant to percussion in the case of a splenic tumour, whereas with a kidney enlargement it is dull.

j. Bruits and friction rubs may be heard over some splenic tumours, but not over renal tumours.

k. Hæmaturia, pyuria, and albuminuria are symptoms in favour of a tumour being renal.

l. The sudden development of a varicocele may be associated with a large left renal tumour, but not with an enlarged spleen.

m. Positive blood changes may indicate that the mass is a spleen, for instance, when the leucocytes are enormously increased in number per cubic millimetre, as in spleno-medullary or lymphatic leuchæmia.

B. *The points of distinction between a renal tumour and an enlargement, distortion, or displacement of the liver.*

A kidney tumour may become firmly adherent to the under surface of the liver, and in consequence be liable to be mistaken for a local enlargement of that organ.

a. Both the kidney tumour and the liver, in consequence of being adherent to each other, would move downwards together and at the same rate during respiration.

b. It might be possible, however, to feel the sharp, well-defined edge of the liver lying over the kidney tumour.

c. On bimanual palpation the loin would be filled out behind by the renal tumour, and would feel hard and resistant.

d. If a sensation of nausea was produced as a result of manipulating the tumour it would point to the kidney being the organ involved.

e. On percussion the normal resonant note obtained in the loin over the colon would be replaced by a dull note.

f. Signs of renal disease, hæmaturia, pyrexia, or albuminuria would be in favour of the tumour being renal.

A liver constricted and deformed as a result of tight lacing, or a portion of it semi-detached from the rest in the form of a Riedel's lobe, may be freely moveable, and in consequence be mistaken for an enlarged, moveable, or floating kidney.

A displaced liver may also give rise to a tumour which may be difficult to distinguish from a renal tumour.

(i.) A deformed or displaced liver presents a well-defined and often sharp edge, generally with a notch in it, near the site of the gall-bladder, or in the middle line. A renal tumour is rounded, and never has a sharp edge or notch.

(ii.) In both cases on bimanual palpation the tumour may be found to be freely moveable. The liver tumour can be moved from side to side and from

before backwards, but it cannot be drawn downwards towards the pelvis. The renal tumour may be moved from side to side, and from before backwards, but, as a rule, may also be slipped up under the ribs or be drawn downwards towards the pelvis.

(iii.) Bimanual palpation will further reveal the fact that the hands cannot be placed above the liver tumour, for, although the constriction may be very marked, it can usually be determined that the moveable portion is connected above with the liver, and comes down close under the costal margin. In the case of a renal tumour it will be found to be more deeply situated in the loin, that the hand can often be placed above its upper limit, between the mass and the costal margin, and the liver may be felt independently of it. Also, the liver may be felt to move downwards on respiration more freely and to glide over the deeply situated renal tumour.

(iv.) There is usually impairment of note or actual dulness over the anterior surface of a liver tumour which is continuous with the normal liver dulness. A resonant note can generally be obtained over a renal tumour on account of the colon being displaced forwards and lying in front of it, and even when so enlarged as to give a dull note on percussion, there is usually a band of resonance between it and the liver dulness. It is very rare for a liver tumour to have any bowel in front of it, but if the hepatic tissue is thinned out and has a gas-containing colon behind it, it may not be perceptibly dull.

(v.) The presence of jaundice is in favour of an hepatic tumour. It is not, however, absolutely diagnostic, for it is a symptom which may be associated with certain forms of renal disease, *e.g.*, moveable kidney and large renal tumours pressing on the portal fissure.

C. *The points of distinction between a renal tumour and an enlarged gall-bladder.*

a. A gall-bladder tumour may cause a local prominence of the anterior abdominal wall, and be seen to move downwards when the patient takes a deep breath. A kidney tumour, unless very large, does not cause any bulging of the anterior abdominal wall, and if it does so, there is very little downward movement during inspiration.

b. A gall-bladder tumour is superficial and close to the abdominal parietes. A renal tumour is deeply situated in tho loin, and does not approximate to the anterior abdominal wall, unless very large.

c. A gall-bladder tumour is pear-shaped. A renal tumour is bean-shaped.

d. The upper part of a gall-bladder is usually constricted, and its neck may be felt to pass under the edge of the liver. A renal tumour may be felt to be quite independent of the liver, and the hand may be placed between it and the costal margin.

e. A gall-bladder tumour can often be moved from side to side and from before backwards, but it cannot be pulled downwards towards the pelvis. A renal tumour, if moveable, can be moved from side to side, and be pushed upwards towards the ribs and downwards towards the pelvis.

f. If a gall-bladder tumour is pushed backwards into the loin and the pressure is then relaxed, it flies back to its original position close under the abdominal wall. A kidney tumour may be pushed forwards, but on relaxing the pressure it falls back into the loin again.

g. A sulcus can often be felt between the edge of the liver and the gall-bladder tumour if the hand is placed on the upper part of the tumour and the patient takes a deep breath.

h. In some cases, on bimanual palpation both the gall-bladder tumour and the kidney, if moveable, may be felt to move downwards at the same time during inspiration, but the range of movement of the former is much greater than that of the latter.

i. If the intestine is distended with gas, the gall-bladder may be pushed upwards and forwards, and in consequence become more prominent. In the case of a renal tumour it will be forced back into the loin.

j. A gall-bladder tumour is dull to light percussion; a renal tumour is resonant in front.

k. The presence of jaundice would be much in favour of the tumour being of the gall-bladder, but is not absolutely diagnostic, as this symptom may be associated with moveable kidney and other forms of renal tumour.

l. Previous attacks of sharp colicky pain may be associated with either gall-bladder or renal enlargements. If the pain is most intense in the right hypochondrium and right shoulder and is associated with jaundice, it points to the gall-bladder. If the pain is most intense in the lumbar region and shoots downwards in the line of the ureter and is associated with hæmaturia or pyæmia, it points to the kidney.

D. *Points of distinction between a renal and an ovarian tumour.*

a. An ovarian tumour is superficial and usually in direct contact with the abdominal parietes, the intestines lying behind it unless it is of small size and adhesions have taken place between its anterior surface and a coil of intestine. A renal tumour has intestine lying in front of it.

b. An ovarian tumour, unless it has a long pedicle, is usually situated much lower in the abdominal cavity than is a renal tumour.

c. An ovarian tumour may have been noticed first of all in the lower part of the abdomen and have been observed subsequently to grow from below upwards.

d. An ovarian tumour is usually spherical in shape, a renal tumour bean-shaped.

e. An ovarian tumour, if not adherent to the abdominal wall, may be moved in all directions, but cannot be pushed upwards under the costal margin.

f. An ovarian tumour is usually situated more in the centre of the abdomen than a renal tumour.

g. On palpation, an ovarian tumour may be felt to have a pedicle connecting it with the pelvic organs. A renal tumour has no such connection.

h. On percussion, a dull note is elicited over the front of an ovarian tumour, and the loin is resonant. In the case of a renal tumour the loin is dull, and the front of the tumour yields a resonant note.

i. On vaginal examination the lower pole of an ovarian tumour may be felt in the pelvis, and the uterus may be pulled upwards. A renal tumour would not be felt per vaginam unless the kidney was displaced or extremely moveable; and even then there would be no displacement of the uterus upwards.

j. An ovarian tumour is most likely to be mistaken for a renal tumour due to hydronephrosis. If explored with a hypodermic needle and syringe the different character of the fluid in the two conditions would be diagnostic.

The fluid from an *ovarian cyst* may vary in appearance. In colour it may be clear yellow, greyish.

greenish, greenish-brown reddish-brown, or even almost black. When dark, its hue is usually due to previous hæmorrhages into the cyst. It may be clear and watery, but is usually thick, turbid, glairy, or slimy in character. The specific gravity is usually high, from 1020—1026, but it may be as low as 1002 or as high as 1050. The reaction is alkaline. It does not readily coagulate. It may have a thick deposit on standing. Microscopical examination shows red and white blood corpuscles, squamous, columnar, and epithelial cells, cholesterin crystals and colloid bodies. A chemical examination shows it to contain water, serum albumen, serum globulin, metalbumen, and salts.

The fluid from *hydronephrosis* is usually clear, pale yellow, and watery. Occasionally it may be slightly turbid. The specific gravity varies from 1006—1020. The reaction is acid or neutral. It usually contains urea, uric acid, traces of albumen, and more sodium chloride than is generally found in normal urine. In very old cysts there may be no uric acid nor urea. A microscopical examination may show the presence of some renal epithelium.

E. *The points of distinction between a renal tumour and a malignant growth of the colon.*

The commonest form of colon growth is an annular carcinoma which involves only a small extent of the gut, and does not, as a rule, give rise to a palpable tumour, but produces chronic intestinal obstruction with its concomitant signs. An extensive malignant growth involving a considerable portion of the ascending or descending colon near the hepatic or splenic flexures may, however, produce a tumour which is liable to be mistaken for a renal enlargement due to malignant disease.

a. In both cases the tumour is deeply placed in the loin, that due to the colon, however, being more superficial than a renal tumour.

b. If adhesions have not fixed the colon to the kidney and adjacent parts, its position may be noticed to vary a little from time to time spontaneously.

c. In malignant growth of the colon there may be constipation, alternating with the passage of loose motions containing pus, mucus, and blood. In cases of renal tumour there may be constipation as a result of displacement of the colon, but there would not be blood mucus or pus in the fæces.

d. As a result of malignant disease of the colon, chronic intestinal obstruction may be produced, causing abdominal distension from tympanites. The outlines of the distended coils of intestine, showing marked peristalsis, might be visible.

e. In renal tumours, especially if due to carcinoma, there may be hæmaturia, pyuria, and albuminuria, but these signs must not be relied on absolutely, for their absence does not exclude the possibility of kidney disease.

(*To be continued.*)

Sport.

Rugby Football.

GUY'S v. CATFORD BRIDGE.

This fixture, always productive of much local interest, was, to some extent, marred by the weather. The rain commenced just before the game, and kept on persistently throughout. Still, some fine play was witnessed, which promises well for future matches.

The Catford men at first were better forward, and for some long time Guy's were held in their 25. Millett and Lee did some excellent defensive work, but were compelled to concede several minors. The Catford forwards were certainly playing a great game, and they deserved the try which Matthews gained for them. Tribe led up to it, but there was some hesitation in going for Tribe, otherwise he would not have got away. Lindow kicked a good goal. Guy's, after this, improved, the pack was shown a fine lead by Roberts and Stranach, and they commenced to assert themselves. Their footwork gained more "devil," and altogether the play was more lively and determined. The equalising goal came through some smart passing by half-backs, Harkness, and Lee. The last-named gained the try, Stokes kicking the goal.

After the interval the hospital pack got right "on top." Tweed showed up well, also Antony, whose first appearance was promising. Catford tried Millett, but found him safe. Then Roberts headed a rush to Stevens. Two or three scrums ensued. Pritchard swung the ball out, and Medlock got his men moving, Stokes finally completing the movement, after a melée near the goal post, with a try. The Hospital now had a very trying time. Hoby mulled a drop out (the ball was very slippery); the Catford forwards dashed up, and pinned Guy's right on their line; scrum after scrum took place, relieved at last by Guy's touching in defence. Just after, Hoby, lying well up field, followed up quickly a long punt. Wilson, a half-back of Catford's, bungled the ball, and Hoby charged his kick down. Putting on all his pace, Hoby gathered at top speed and raced right to the posts. A smart piece of opportunism, and Hoby deserved his try. Guy's last try came from a very fine passing movement, initiated by the halves, and carried on to Harkness. His was an awkward pass, but he got the ball cleverly with one hand and made off. At the correct moment he gave to Stokes, who firmly put Horan and Stevens on one side, and gained a really fine try. Stokes goaled the three tries gained during the last half, and the final score was:—

Guy's ...	... ...	4 goals=20 points.
Catford Bridge	...	1 goal = 5 points.

GUY'S.—H. Millett (back); H. Harrington, H. Lee, A. H. Harkness, A. L. Stokes (three-quarters); C. H. Medlock, G. B. Pritchard (halves); C. S. L. Roberts, W. S. Stranach, M. Tweed, H. Hoby, O. Parry Jones, L. Horsley, A. L. Liebson, —. Antony (forwards).

REMARKS.—The first match is always one where criticisms should be few. But one or two points were so palpable that attention may as well be called to them at once—points, be it noted, advantageous and otherwise. The forwards were very ragged first half, but towards the end of the second they were excellent. But more "devil" in the loose is wanted; more solid shoving in the scrum. The tackling must also be lower and more thorough; shoulder tackles are useless, as a rule. The halves promise to be very useful, especially if we get a day dry enough for Pritchard to swing the ball out more quickly. No fault can be found with Millett. Stokes gave an excellent display, but when tackled he must not pass "anywhere"—it is too dangerous to chance one's luck in that way—the opponent and not one's own side so often capture these promiscuous passes. Harrington's first appearance was hopeful. He will get more chances in future games. Lee steadied the line, and his defence was

valuable. Harkness played well. The XV., when one or two forwards, not yet ready to play, turn out, will speedily shake down into a good team. A last word: Hoby, as a sort of rover, did many good things, but he must not "rove" too much.

Association Football.

GUY'S v. DULWICH WOOD.

Surrey Senior Cup.

In this game, played at Honor Oak Park on Saturday, October 7th, Dulwich Wood ran out winners by 4 goals to 2. Guy's, with the exception of R. M. King, who was unfortunately "crooked," played the same team as last year.

Rain fell incessantly throughout the game, rendering the ball and ground greasy, and making good play well nigh impossible. Guy's started well with a goal from Veale, in which Birks had a prominent share, but just before half-time Dulwich equalized through their inside left who got clear away owing to a misunderstanding on the part of his opponents' defence.

Immediately on resuming, a smart piece of combination between Birks and Bergh, who went straight through their opponents with short passes, led to the latter player putting Guy's one goal ahead. Within the last quarter of an hour, however, Dulwich first drew level with a cross shot from their inside left, and then put on two goals in rapid succession, thus finishing with four goals to their credit as against Guy's two.

Excellent play, and perhaps a little luck on the part of the opposing goal-keeper, frustrated several good shots from Guy's three inside forwards, who were very unlucky not to score on many occasions. The state of the ground and the fact that it was their first game together this season make a criticism of the team's play impossible. However, Guy's stuck to their tradition of failing to adapt themselves to Honor Oak Park under wet conditions, and the system of short passes among the forwards, especially against Surrey teams, who inevitably play the long passing game, appears, as far as results go, to be a mistaken tactic. Team:—

Guy's.—Rhys Evans (goal); Russ and Keer (backs); Kyle, Neely, Neale (half-backs); Spong, Bergh, Veale, Birks, Bevis (forwards).

Shooting.

The second, third, and fourth shoots for the Armitage Cup took place at Bisley on 14th and 28th June and 5th July. Scores:—

H. Hogben	91
E. J. Cooke	82
S. E. Johnson	81
G. A. Blake	80
J. T. T. Forbes	75
G. W. Elkington	70
	479
St. Bart's	504
H. Hogben	95
S. E. Johnson	91
E. J. Cooke	80
G. A. Blake	79
J. T. T. Forbes	77
J. E. Rhys Evans	70
	492
St. Bart's	499
S. E. Johnson	93
H. Hogben	92
E. J. Cooke	90
J. T. T. Forbes	78
G. A. Blake	77
J. E. Rhys Evans	70
	500
St. Bart's	507

St. Bart's win the cup by 1,510 points to 1,471.

For the Bisley Cup (10 shots per man at 600 yards) Guy's was the only team entered. The team had to shoot through, but, under the circumstances, it is not surprising that the scores were not very good. Scores:—

H. Hogben	44
S. E. Johnson	41
G. A. Blake	35
E. J. Cooke	35
J. T. T. Forbes	35
L. D. Wright	27
	217

The Annual Prize Meeting was held on 5th July, 1911, when the usual competitions produced some keen struggles. The following gentlemen most kindly contributed to the prize list, and we wish to record our sincere thanks for their kindness in this and many previous years:—Sir Alfred Fripp, M.S., K.C.V.O., A. P. Beddard, Esq., M.D., M. S. Pembrey, Esq., M.D., Messrs. Ash & Co., Ltd., Messrs. Down Bros., Ltd., The Holborn Surgical Instrument Co., Ltd.

I. Newton Pett Challenge Cup.

Won by S. E. Johnson, 93.

II. Handicap Competition.

1. E. J. Cooke	90+7½=97½	1st prize, 17/-
2. J. T. T. Forbes	78+15=93	2nd prize, 12/-
3. H. Hogben	92 scr.=92*	
4. G. A. Blake	77+14=91	3rd prize, 6/6
5. B. Simpson	73+15=88	4th prize, 5/-

* Barred for winning two prizes.

III. 600 yds. Competition.

1. H. Hogben	43	1st prize, 17/-
2. E. J. Cooke	43*	
3. J. T. T. Forbes	42	2nd prize, 12/-
4. S. E. Johnson	41	3rd prize, 6/6

* Barred for winning two prizes.

IV. 900 yds. Competition.

1. E. J. Cooke	31	1st prize, 17/-
2. H. Hogben	30	2nd prize, 12/-
3. J. T. T. Forbes	25*	
4. S. E. Johnson	25	3rd prize, 6/6
5. J. E. Rhys Evans	24	4th prize, 5/-

* Barred for winning two prizes.

V. Aggregate Competition.

1. H. Hogben	165	Messrs. Ash & Co.'s prize.
2. E. J. Cooke	164	Messrs. Down Bros.' prize.
3. S. E. Johnson	159	The Holborn Surgical Instrument Co.'s prize.

At the United Hospital's Prize Meeting, held on the same date, S. E. Johnson, of Guy's, won the Arnold Challenge Cup and Donegall Bronze Badge.

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE

VOL. XXV., No. 609.] OCTOBER 28, 1911. [SIXPENCE.

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Passim.

IT has been brought to our notice that the system, against which we protested in our last issue, of sending all Surgery patients, other than accident and urgent medical cases, to Out-Patients without treatment is based upon the following clause in the Standing Orders for Out-Patient Officers :—

> " . . . He shall take care that no patient shall receive treatment in the Surgery who can, without risk of harm, be referred to the Out-Patient Department."

This clause is, to our minds, open to two interpretations. Firstly, it may be taken to mean, as is being done at present, that *no treatment at all* is to be given to the patients in question in the Surgery; and, secondly, it may mean that the patient is not to be *repeatedly* treated in the Surgery, except in those cases (*e.g.*, tonsillitis) where transference of the case to the Out-Patient Department would involve risk of harm. This latter meaning is the one which has been attached to the clause in the past, and we feel that it would prevent a good deal of misunderstanding if the authorities would interpret the clause in the way in which they mean it to be carried out. We would repeat our belief, and it is a belief which is shared by a great many people, that the present system entails very great hardships on the patients, without doing much to prevent that abuse of hospital treatment which everyone is desirous of preventing.

AN attempt is to be made to equalise the number of dressers on full surgeons' firms throughout the year, so that the anomaly of six dressers' work in one quarter being taken over by two men in the next, may be removed. With this object, it has been decided that all students who, in the ordinary course of events, will be applying for the post of full dresser in the ensuing twelve months shall be required to send in their names to the Dean in the first week of December in each year, indicating at the same time the probable date at which they will be applying for the appointment. The Medical Council will thus be able to arrange for an average supply during the year, and will be able to announce the number of dresserships which will be vacant in each year. This arrangement is to hold good from December of this year, so that all men who desire to obtain the appointment of dresser during 1912 should notify the Dean of their intention in the first week of December, and also state the month in which they desire to begin the appointment.

IN order that a candidate rejected for a dresserships should be able to take another appointment without delay, in future the appointment will commence on January 1st, April 1st, July 1st, and October 1st., so bringing the dresserships into line with the other appointments.

ONE less desirable effect of these changes will be that that unhappy and much-talked-of body of men, the future dressers, will

be deprived of the month's holiday, which, until now, has been interposed between the appointments of senior medical ward clerk and dresser. It is in every way desirable that all appointments should begin on the same date, and in so far the above change is undoubtedly in the right direction. Much objectionable waiting for an appointment will be thereby avoided, and a more even supply of dressers should be obtainable. We gather that the scheme is to come into operation in January, and the dressers appointed in November are to have the choice of doing either two or five months of the appointment in order to inaugurate the change. It is, however, to be hoped that after taking away the month's holiday, which, until now, has preceded the appointment of dresser, the authorities will make some arrangement for insuring a holiday in some other way.

It seems to us a remarkable thing that medical men, who, above all, should be in the position to realize the importance of holidays, and who, we do not doubt, are continually pointing out their value to their patients, should so consistently disregard the need for them when in an administrative position. The habit of taking a fortnight's holiday during an appointment can only be fair if it is universal, since otherwise an undue amount of work is thrown upon the more keen members of the firm. Further, unless this system is officially recognized the fear of bad "signing-up" will prevent many men from asking for leave of absence. It is a grave educational mistake to allow men to pass their first eighteen months or two years in the wards without a break, and we trust that arrangements will be made to ensure a minimum holiday of one month a year to all men working in the wards.

Owing to the number of special departments which now exist in the hospital, it has been found necessary to reorganize the appointments of dresser in these departments. In future the appointment of dresser to the Ophthalmic Surgeon will be combined with the appointment of orthopædic dresser, and there will be a combined appointment of dresser to the Throat, Ear and Genito-Urinary Departments. There is also, we understand, to be an appointment of clerk to Out-Patients for children, nervous diseases, and skins. One of these combined appointments is to be compulsory. This should add greatly to the value of what have always been very popular appointments, and at the same time will enable men to become familiar with the work in the special departments without spending a disproportionate amount of time in so doing.

The latest "Hospital Scandal" has induced that dear old lady who figures so prominently in *Punch* to turn her attention to the needs of our hospital. Reading that the house-surgeon was unable to admit a case owing to the fact that he had not got a bed for it, this generous soul has attempted to prevent the recurrence of such an incident, and has sent a bed for which she has no further use to the hospital! If some similar kindly person would now send us a ward in which to put the bed, the difficulty would be quite easily and pleasantly solved.

It has been decided to hold the Hospital Ball, which was mentioned in our last issue, on November 27th, at the Galleries, Prince's Rooms, Piccadilly, under the presidency of the Rt. Hon. Viscount Goschen. Mrs. Hale White has kindly promised to act as hostess, and to promote the dance with the aid of a Ladies' Committee, which at present consists of: Mrs. Cosmo Bonsor, Mrs. Frederick Taylor, Lady Perry, Mrs. Lauriston Shaw, the Matron, Mrs. Symonds, and Lady Fripp. Dancing from 9.30 to 3.30. The price of tickets, including supper, will be 12s. 6d. until November 21st, after which date the Committee reserve the right to raise the price to £1 1s. Proceeds to be given to the hospital. Tickets can be obtained from the Ladies' Committee, or from A. S. Roe and G. R. Hind (Hon. Secs.), the College, Guy's Hospital, S.E.

It is satisfactory to know that the Ball given last year resulted in a profit of £72. Mr. Mollison, the Hon. Treasurer, and Mr. J. G.

Saner, the Hon. Sec., inform us that this amount was distributed as follows:—

	£	s.	d.
1. For 100 Extra Children at Xmas Out-Patient Tea	12	10	0
2. For Maternity Charity	20	0	0
3. For Out-Patient Samaritan Fund...	20	0	0
4. For Xmas Gifts and Entertainments	19	10	0
Total	£72	0	0

On our Out-Patient Clerks' writing tables we have forms and slips of all the hues of the rainbow, ranging from the most familiar and invaluable of them all—the Guy's slip. We have a slip of green, one of blue, one of yellow (a comparatively recent and very useful addition), various reds and pinks, and other subtler tints beyond our powers of colour-description. There is another form we should like to see amongst them, if a colour can be found for it, and that is a slip or card to be filled up when a case is sent to the R.S.O.'s list of surgical cases awaiting admission. At present these names are written on Guy's slips, and important details such as the patient's age, the diagnosis, or the name of the surgeon who sends the case, are apt to be missed in the hurry of out-patient work. If a form was provided with definite spaces for these particulars, annoyance and inconvenience would certainly be avoided in many cases.

We are asked to announce that Dr. Withers Green will conduct a party of ladies and gentlemen round some of the places in London which have associations with Dr. Johnson, on Saturday, November 4th. Dr. Green has already conducted several of these "Johnsonian jaunts," as he terms them, which have been much appreciated. He extends an invitation to to any of our readers who care to take part in the excursion, and asks us to state that a start will be made from his house, 4, Wardrobe Place, Doctors' Commons, E.C., at 2.30 p.m. sharp.

Etalaneni Hospital, Zululand. — Miss Lucy Mallandaine, late of Guy's, and now Sister-in-charge at this hospital, writes that the work of the institution is seriously crippled for want of a medical superintendent living on the spot, and she is anxious to hear of a recently-qualified man who is reading for higher examinations, and would be willing to undertake the work at this mission hospital. "It is such a terrible responsibility to be without a doctor," she writes, "and grievous to see the great possibilities ahead and to be doing nothing." Any reader who would like to have further information about this matter should apply to the Superintendent, Guy's Hospital, or write direct to Miss Mallandaine.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Diseases of the Skin. By Sir Malcolm Morris, K.C.V.O. Pp. 762. (Cassell & Co.) Price 10s. 6d.

The fifth edition of this book requires no introduction. It has for a long time been one of the recognized text-books of Dermatology. It has been brought thoroughly up to date by an appreciation of the recent bacteriological researches of Sabouraud, Colcott Fox, Whitfield and others, and new methods of treatment, viz., Salvarsan, Radium, Vaccines, etc. Some new illustrations have been added, and the book is very well and fully illustrated.

A Manual of Fevers. By Claude Buchanan Ker, M.D., F.R.C.P., pp. 314. (Oxford Medical Publications.) Price 7s. 6d. net.

This book for students, without contributing anything very new to Medicine, fulfils very well the task which the author sets himself. It commences with two good introductory chapters, the first dealing briefly and very clearly with such difficult questions as infection, immunity and toxæmia, the second with the examination of rashes and throats. The other chapters deal fully with the fevers, and it would certainly repay the student to read this little book, clearly the result of a large experience, before going to the Fever Hospital, where the clinical teaching is inevitably unsystematic and fragmentary. The illustrations are few in number, but very good, the type is good, the index full.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the Gazette *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

Marriage and Insanity.

By GEOFFREY CLARKE, M.D.

In the crowded curriculum of the medical student such subjects as medical sociology and eugenics find no place, but they are attracting an increasing amount of attention, both in scientific and in lay circles, and now have a considerable literature of their own.

As soon as ever the young physician enters practice he is supposed to be an authority on these and kindred social questions, and, as a rule, the less he has studied the question the more easy he finds it to give a dogmatic opinion.

The question of marriage and insanity is one of the common conundrums of the family physician; his advice on this subject is often sought, but seldom taken. The subject has been frequently discussed at medical and alienist meetings during the last few years, and it is well to be acquainted with the opinions of those whose vast experience establishes them as authorities on this question.

The problem has two aspects: the probable effect on the offspring, the eugenic side; and the effect on the contracting parties themselves, the sociological side.

With regard to the eugenics of marriage and insanity, it must at once be confessed that we have no reliable statistics, but such figures as we have point overwhelmingly to defective heredity as being the most potent factor in mental instability. In over 50 per cent. of the insane, about whom a satisfactory history can be obtained, there is one or more near relatives also affected. We do not, however, know which forms of insanity are most likely to be transmitted, and we cannot say, even approximately, what the chances are of a man with an insane parent passing on the disease to one or more of his children.

Each case must be judged on its own merits. Where there are many cases of insanity in the family, the chance of one or more of the children becoming mentally affected is great, but where a grandparent has suffered from senile insanity when past 70 years of age, there is no reason to suppose the mental instability will be transmitted; likewise, where there is a record of syphilitic or gross brain disease in some near relative it does not necessarily augur ill for the children. From the eugenic standpoint anyone with a family history of insanity should be strongly advised not to marry a person with a similar hereditary taint, but to choose a partner with a family history free from mental taint. Cousins should not marry where there is any history of heritable disease, but there is no evidence to show that there is anything deleterious in the marriage of cousins, provided the family have a clean bill of health.

With regard to people who have had an attack of insanity and have recovered, we are probably, with a few exceptions, on the safe side from an eugenic point of view in advising them to refrain from having children. The exceptions are those where the mental breakdown is due to exhaustion or some toxæmia such as influenza or pneumonia, or the confusional states which occasionally follow head injuries and shock and which completely recover.

Certain methods of preventing conception are very harmful, and those that practise them frequently become subject to various psychopathies; it is, however, one thing to give advice, and another to get it followed.

Now, with regard to marriage of people who have had an attack of insanity, some authorities contend that no one who has had an attack of insanity ought ever to be allowed to marry, but many alienists with a wide experience regard this rule as much too drastic.

Dr. Savage read a paper on this subject at the Medico-Psychological Society last November which produced an interesting discussion. Dr. Savage thinks that many cases that break down at adolescence with either melancholic or maniacal symptoms completely recover and do not have further attacks, and these, he thinks, ought not to be prevented from marrying. Of course, the difficulty here is that it is almost impossible to foretell whether the disease will recur or not in some time of special stress or strain. Dr. Savage also exempts the toxic cases, and I have no doubt would the traumatic, but these cases only form a very small proportion of mental diseases.

There is a general consensus of opinion as to those who should not get married.

1. None of those who have definite delusions or hallucinations, but who are not sufficiently alienated to be certified.

2. Those subject to recurrent attacks of mental disorder.

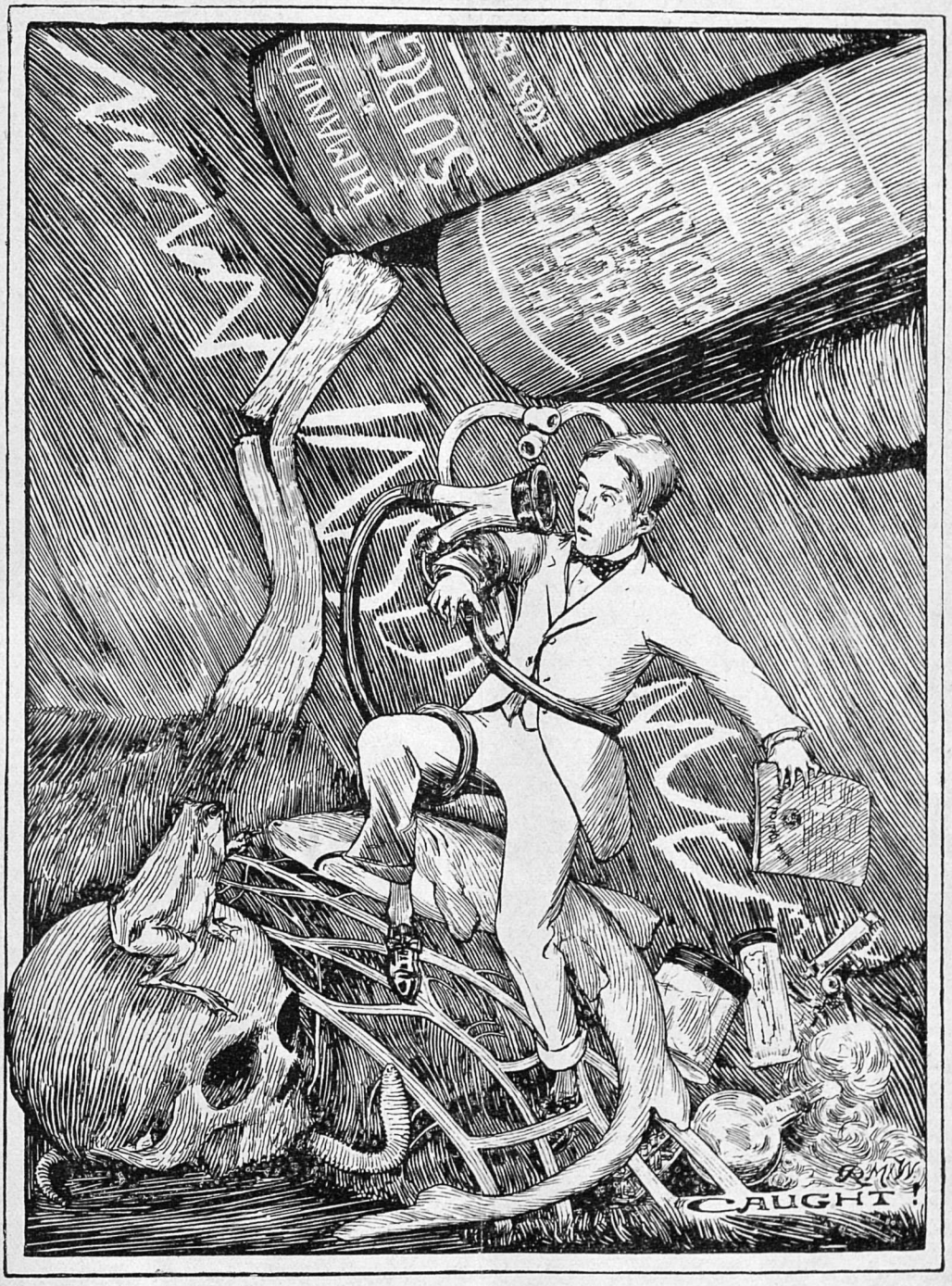
3. Epileptics.

4. The so-called moral insanities, the delinquents, and the alcoholics.

5. Marriage should never be advised as a remedial measure in cases associated with masturbation or exaggerated sexual appetite.

6. Syphilitic disease of the central nervous system should be considered a ban to marriage.

Finally, when consulted by those who wish to get married and who have had a previous mental breakdown or have a history of heredity insanity, it is the duty of the doctor to point out the necessity of the whole facts of the case being revealed to the other party. This is, of course, only common honesty, but, at the same time, it is difficult to make the people affected by it regard it in this light.



Suggested by the Educational Number of the *B. M. J.*

Note on a Fatal Case of Acute Rheumatism.

By A. A. GREENWOOD.

I think the following case is of sufficient interest to bring to the notice of readers of the Gazette, on account of the severity of the disease and its many complications.

N. F., æt. 6 (family history unimportant) in October, 1910, suffered from an attack of tonsillitis following a small alveolar abscess. This attack subsided in a day or two, and the patient remained in good health until December 18th, 1910, when she was seized with general abdominal pain following a dose of Pulv. Glyc. Co. Temperature was normal and pulse 120; there was no sickness. On the following day there was pain in both ankles and the temperature rose to 100·4°. Four-grain doses of Sod. Sal. were given every three hours. On December 20th there was œdema and slight redness of the right foot, but the abdominal pain had subsided. In the evening of the same day the temperature rose to 101·4°; there were pain and tenderness in the right iliac fossa, sufficiently definite to cause the question of appendicitis to be discussed. The next day this had disappeared, but both ankles were much swollen and red, and during the next few days many joints were affected in turn, in spite of the continued administration of salicylate, the dose of which was increased to gr. v. three-hourly, this being given throughout almost the entire illness, apparently without any beneficial influence on the temperature or joint pains. On December 26th a systolic bruit was audible at the apex, traceable up to the base of the heart, and next day there were signs of diaphragmatic pleurisy on the left side, whilst the cardiac bruit was louder. Marked choreic movements of the head and left arm especially were first noticed on January 6th, and were an obvious feature of the disease until the end, being moderately severe. On January 7th, after a day or two of moist râles at both bases, there was dulness and all the physical signs of pneumonia at the left base, chiefly behind but also extending to the front slightly. The cardiac dulness was also increased and the apex displaced up and out, pericardial effusion being suspected. This was confirmed on January 8th by a marked rub over the sternum. By this time the patient was very bad, and continued so until January 16th, when the breathing became much worse, there being now signs of consolidation at the right base also. She died at 8 a.m. on January 17th.

The features which struck me as being interesting were—

1. Onset with vague abdominal pain, finally becoming localized in the appendix region.

2. Impotence of Sod. Sal. to control the disease; in fact, it seemed to have no influence whatever.

3. Definite development of chorea during illness.

4. Lung complications, which proved fatal on top of the severe toxæmia already present. As a rule, rheumatic pneumonia, a comparatively rare complication, is mild in type and very seldom fatal.

In conclusion, I am indebted to my father, Dr. A. Greenwood, for notes of this case.

Some Statistics from the Skin Department.

During the twelve weeks ending September 26th, 1911, 735 cases have been seen and treated in the Skin Department. The following is a list of the diseases seen and their respective percentages:—

Impetigo	22 per cent.
Eczema	15·3 „
Tinea tonsurans	12·6 „
Urticaria	7 „
Alopecia areata	5 „
Scabies...	4·5 „
Pyodermia	3·6 „
Application dermatitis ...	2·6 „
Psoriasis	2·3 „
Varicose ulcers...	2·3 „
Tertiary syphilides	2 „
Impetigo a pediculi	2 „
Acne vulgaris	1·6 „
Warts	1·6 „
Dysidrosis	1·3 „
Pediculi vestimentarum ...	1·3 „
Herpes Zoster	1·3 „

The remaining 11·7 per cent. was made up of the following conditions in their order of frequency:—furunculosis, nævi, pediculi capitis, secondary syphilides, lupus vulgaris, seborrhœic sycosis, seborrhœa, lichen planus, seborrhœic dermatitis, insect bites, keloids, senile pruritus, rodent ulcers, herpes gestationis, erysipelas, lupus erythematosus, miliaria, acne rosacea, pityriasis rosea, xerodermia, molluscum contagiosum, scrofulodermia, erythema nodosum, lichen spinulosus, dermatitis artifacta, hydroa vacciniforme, and a few unclassified conditions.

Among 160 old cases the more important percentages were as follows:—

Eczema	27 per eent.
Ulcers on leg	24 „
Psoriasis	16 „
Tertiary syphilides	6·6 „

Thus it will be seen that of the old cases these four conditions make up almost three-quarters of the whole, while among new patients the same four account for only twenty-two per cent.

It will also be noticed that among the new patients impetigo, eczema, and tinea tonsurans make up exactly fifty per cent of the whole.

From the point of view of the seasonal incidence of various skin lesions, it might possibly be of interest were similar figures to be collected during the spring and winter months. J. A. R. & R. A. F.

Correspondence.

To the Editor of Guy's Hospital Gazette.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—Ed., G.H.G.]

The Prospects of the Medical Profession.

Sir,—Microbus Pessimisticus is in the atmosphere. Mr. Editor, when you meet a pessimist, please kick him, and continue to chastise him till you have changed his pessimistic cerebral cells into normal thinking ones.

As an old Guyite I write to our freshmen, and tell them that our profession is as good as ever, that Guy's spells success, and failure only to those who deserve it.

What is success?

1. Being able, in your old age, to look back and say, "I have added my mite to the heap of human happiness."

2. To provide the necessary in their old age for those for whom you are responsible.

3. To have duly started in life those for whose existence you are answerable.

4. To be happy, cheerful, and contented, doing your best to make those with whom you come in contact thank God that they have lived.

Your pessimist says the Insurance Bill is going to ruin our profession—rubbish. Under the Insurance Bill, if we so will it, the profession will be better off than ever. Mr. Lloyd George deserves well of us. Why? Because he has succeeded in doing what no man has ever done before—made us a united profession. Let us continue to be united, demanding only that which is just and right, then the public will back us, and we must gain our points, the principal of which, in my opinion, are:—

1. Ten shillings per head per annum.

2. The drugs to be found, and the dispensing done, by others, and not by us.

3. An income limit of £2 a week.

4. Freedom from the Friendly Societies.

Stick together, and then all the Lloyd Georges in the world can't hurt us. I have held Clubs in my time, have been Medical Officer to Provident Dispensaries, have done Poor Law Appointments, and therefore I think I may, without conceit, consider that I know something of these points.

The pessimist says that bone-setters, medical electricians, teachers of physical exercises, concentrated drugs, etc., are ruining the profession. Rubbish again. All these things have harmed, and are harming, the profession. Why? Because men don't know their work. If men knew their work, bone-setters, etc., would perforce have to disappear, because they would "have no work to do."

The pessimist says that the profession is overcrowded. It is not overcrowded with good eggs. It may be with rotten ones. There is plenty of room for men who know their work; there is no room for ignorant slacksters.

Freshmen, learn your work, and fear no man.

You may think me hard when I say that if a Guy's man fails, he deserves his failure. Freshmen, listen to an old Guy's man who wishes you every success. I will tell you something you may not know, but something true. You have at Guy's, and have always had, as fine a Staff as any hospital ever possessed. Fine in teaching, but also fine in something else. Let a Guy's man be failing through no fault of his own, from illness, accident, be it what it may, he will find at least one member of that Staff willing to lend him a helping hand in advice, in work, and even, if necessary, in money. Don't forget it—do your duty, and your Staff will do more than theirs, and failure you will never know.

Therefore, Freshmen, join with all old Guyites, and with one voice shout, "Floreat Guyonia."—Yours faithfully,

MIDDLE-AGED GUYITE.

October 16th, 1911.

The Funeral of Dr. Pavy.

To the Secretary,

The Students' Club, Guy's Hospital.

Dear Sir,—Will you please convey to the members of the Students' Club of Guy's Hospital my sincere thanks to them all for the beautiful flowers which they sent to Dr. Pavy's funeral. It was indeed kind of them to send such a lovely wreath.—With kind regards, yours sincerely,

WILLIAM B. SAVORY.

Woodlands,
Stoke Poges, Bucks.
October 12th, 1911.

Children's Happy Evenings Association.

Sir,—Would any student be kind enough to come every other Tuesday evening, from 5.15 to 6.45, to the L.C.C. School, at Napier Street, Hoxton, to help at that branch of "The Children's Happy Evenings Association."

I am the Honorary Secretary of this branch, and want someone to help with the boys and take some of them for boxing.

The school is about five minutes from Old Street Station. Anyone who would help I should be glad to hear from.—Yours faithfully,

(Miss) IRENE STEELE-PERKINS.

85, Wimpole Street,
London, W.
October 19th, 1911.

Fracture of the Odontoid Process.

Dear Sir,—Mr. P., aged 71, was seeing a friend at 6.30 on Saturday evening. He commenced to go upstairs, but was called back, and whilst turning he fell backwards down two stairs only and struck his head on the passage wall, there being slight bruising only over the left eyebrow. He complained of pain in his neck, but mostly at outer end of left clavicle. He bade his friends goodnight and walked home alone, one-third to half a mile, and went straight to bed and to sleep after his neck and shoulder had been rubbed. He had a more restless night than usual, and in the morning, when called, said he did not want any breakfast; he was, however, given an egg and brandy, and a little later had some tea. A few minutes after this had been taken to him he went to the next room and made his son understand that he could not get his breath; he was unable to talk. He was taken to bed again, and was dead in a few minutes, 9.30 a.m.

Subsequent examination showed that death had taken place from asphyxia, and on removing the neural arch it was found that the odontoid process had been snapped through without any dislocation; there were only a few drops of blood effused. The membranes of the cord were, however, torn, and the cord itself was very soft and friable (? with œdema), which I took to be the cause of the asphyxia.

The fact of his living fifteen hours after the accident may be of interest to some of your readers.—Yours truly, BERNARD W. LACEY.

The "Florence Nightingale Memorial Fund."

Dear Sir,—You very kindly said you would give publicity to the fact that the "Florence Nightingale Memorial Fund" is not yet closed. I shall be very pleased to receive donations, however small, to forward from Guy's to the Treasurer of the Fund.

The Memorial is to take the form of (1) a Statue of Miss Nightingale to be erected in London, (2) a Trained Nurses' Annuity Fund, if means allow. So far sufficient money has not been guaranteed even for the Statue.—Yours faithfully, L. V. HAUGHTON, Matron.

Pass List.

Cambridge University.

Second Examination for Medical and Surgical Degrees.

Part II.—Pharmacology and General Pathology.

O. G. Morgan.

Papers by Guy's Men.

Hildred B. Carlyll, M.A., M.D. Cantab., M.R.C.P. Lond.: The Pathology of Amaurotic Idiocy, with an account of seven cases. (Jointly with Prof. Mott.)—*Archives of Neurology*, vol. 5, 1911.

John D. Malcolm, F.R.C.S. Edin., Surgeon to the Samaritan Free Hospital: A Large Fibrocystic Tumour Distending the Buttock.—*British Medical Journal*, 14th October, 1911.

J. T. J. Morrison, M.A., M.Sc., F.R.C.S. Presidential Address on Aspects of Medicine as a Profession. Delivered at a Meeting of the Birmingham Branch, B.M.A., on October 12th.—*British Medical Journal*, 14th October, 1911.

C. H. Oram, L.D.S.: An Odontome (Illustrated).—*British Dental Jonrnal*, October 1st, 1911.

A. H. Tubby, M.S., F.R.C.S., Surgeon to the Westminster Hospital and Royal National Orthopædic Hospital. Two Lectures on Arthritis Deformans. Delivered at the Polyclinic.—*Clinical Journal*, October 11th and 18th, 1911.

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E. I. Spriggs, M.D., F.R.C.P., Senior Assistant Physician to St. George's Hospital and Physician to the Victoria Hospital for Children. Lecture I.: On the Feeding of Babies. Delivered at St. George's Hospital.—*The Clinical Journal*, October 25th, 1911.

From the Gazette's Special Pathologist.

M., Clacton-on-Sea.—Blood serum, inoculated with this swab, gave after incubation a practically pure growth of Klebs Loeffler Bacilli.

F.W.M.P., Teignmouth.—This growth is a carcinoma of the breast composed of small epithelial alveoli in a fibrous stroma. It is infiltrating all tissues adjacent to it.

The Difficulties of the Diagnosis of the Cause of Pyrexia.

CLINICAL LECTURE BY Dr. W. HALE WHITE.

[For the blocks illustrating this lecture we are indebted to the Editor of the *British Medical Journal*.]

Gentlemen,—It must so often happen to you that the difficulty with which you are confronted is to tell why a patient's temperature is raised that I thought we might this afternoon go over some of the more exceptional causes of pyrexia.

Usually speaking, it is easy to make out the cause. The patient has an abscess somewhere, or has pneumonia, or some well-defined obvious reason for the pyrexia. The first thing you have to bear in mind in this connection is that the temperature may be modified by the circumstances under which it is taken. For example, if the patient has been brought up to the hospital, sometimes the collapse caused by bringing him up will make the temperature much lower than it would otherwise be; and at other times, if the patient has walked up, the exertion of that walking makes the temperature higher than it would have been. Every ward clerk is familiar with the fact that the temperature on admission is an untrustworthy guide. You will remember also that exercise raises the temperature, even in healthy people, and that has to be borne in mind when you have to consider whether work is useful, as in the treatment for phthisis, by causing some auto-inoculation, and you try to gauge the degree of auto-inoculation, as the result of work, by the temperature. To show the effect of exercise on healthy people, I may mention that a man walking for one hour at four miles an hour may get his temperature raised to 100·6°, and a man who walked at six miles an hour had his temperature raised to 103°. In the case of warm-blooded animals, sometimes external temperature affects the body temperature, and that is strikingly shown when you get into a hot bath. A man's temperature was 98·28° before he got into a bath of 112°, and when he had been in it for fourteen minutes his temperature was 103·2°. When in a Turkish bath the temperature does not rise to anything like that degree, because you can sweat and so bring your temperature down. This capability of the body to maintain its temperature fairly constant, notwithstanding that the temperature of the surrounding air varies, is peculiar to warm-blooded animals, but it sometimes breaks down, and when it breaks down in the human being the patient has sunstroke. That is simply a failure of the thermotaxic mechanism of the human being to adapt itself to the external temperature, and so the temperature rushes up and the person has sunstroke. As long ago as 1868, Wunderlich noticed that the temperature of fever patients was highest in the hot months of the year. If you were to take the temperatures of people with a febrile illness in the hospital in the warm months of the year, you would find that they were on the average higher than the temperatures of the same illnesses in the cold months. By far the best collection of cases of hyperpyrexia is that by Dr. J. H. Bryant, and the great majority of his cases occurred during the summer months—June, July, August and September—the people who were ill not being able, by means of their thermotaxic mechanism, to accommodate themselves properly to the external temperature. Of course, as you all know, the temperatures of children are erratic; their thermotaxic mechanism is not stable, and so slight causes send their temperature up or down.

A few comparatively simple chemical bodies will raise the temperature. I remember two children who were admitted when I was Dr. Fagge's house-physician. They were covered with a red rash and were delirious, and the question was what was the cause of the rash. They were put in an isolation room, because it was thought they were scarlet fever cases. Nobody could determine what the rash was. In the evening, about 9 o'clock, I saw the mother, who casually said, "I wonder whether the berries had anything to do with the illness." I was shown the berries, and they were belladonna berries. No one had suspected that they were cases of belladonna poisoning, which they were. The rise of temperature and the rash were due to the belladonna. There are a few other simple bodies which will cause a rise of temperature. The most potent drug to do it is Beta-tetra-hydro-naphthylamine. The slide now shown shows the effect of this drug on rabbits. In the first, you see, temperature rose from 101·6° to 107°; in one there is a rise of 9°, also rises of 3·7°, 2·9°, 3·2°. So in belladonna and this drug which I have mentioned you have two excellent instances that chemical bodies will cause a rise of temperature. And that leads on to what is of considerable clinical importance,

namely, carbohydrate fever, as it has been called. I know a boy—he is grown up now—who, year after year, several times a year, between five and twelve years of age, had rises of temperature; they incapacitated him from his work and prevented his going to school. They were, indeed, seriously interfering with his learning. He saw many doctors, and a number of suggestions were made, until he went to Dr. Eustace Smith, who recognised the cause, discontinued his carbohydrates, and the attacks of fever ceased. It is well recognised that carbohydrate food in some people causes pyrexia. It is peculiarly so in children. This slide (Chart 1) shows the temperature of

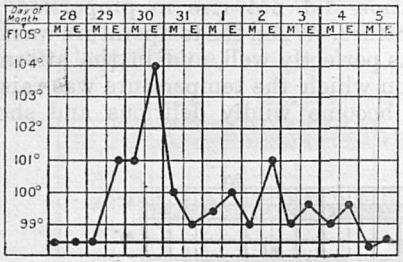

Chart 1.—Showing pyrexia in carbohydrate fever.

this particular boy. So when you are face to face with an obscure case of fever, never forget the possibility of it being due to carbohydrate food. It is frequently overlooked, and you may often discover that the fever is due to a gastro-intestinal error by looking at the motions and detecting blood and mucus in them.

We now pass on to the nervous system. It it well known that fracture of the spine, especially if it is in the cervical region, will cause a rise of temperature. It is also well known that damage to the corpus striatum, and other parts of the brain, will cause a rise of temperature. I show you slides of the result of experiments done on rabbits, their corpus striatum having been damaged. In this column you see the rise of temperature which followed the operation. In the most remarkable case the temperature rose to 106·8°, a rise of 5·2. In each of these cases, except the last two, there was some rise, and perhaps in those two there was no rise because the operation was too severe, and shock prevented the rise. Here is a chart showing the effect of the operation on a rabbit (Chart 2). Its temperature had ranged from 102° (which is the normal for the rabbit), and when the corpus striatum was damaged the temperature rose to 107°, and kept up for several days. I tell you these facts in order that we may apply them to medicine. It is common as a result of ordinary hemiplegia, in which an effusion of blood takes place into the internal

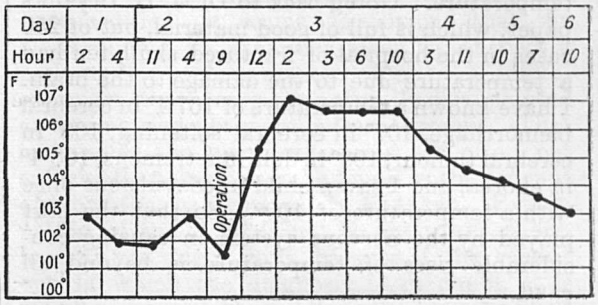

Chart 2.—Showing rise of temperature due to damage of rabbit's corpus striatum.

capsule and damages the corpus striatum, to find the temperature raised. The interesting point is that in the human subject, if the temperature is raised as the result of damage to the corpus striatum, the temperature is higher on the paralysed side than it is on the other side. In such cases frequently the patient is sweating more on the paralysed side. He must, therefore, be losing more heat on his paralysed side, and in spite of that his temperature is higher, so he must be producing much more heat on the paralysed side. In hemiplegia, if you take the temperature in the two axillæ, you will frequently find that difference strikingly shown. This chart, from a case of cerebral hæmorrhage (Chart 3), shows the temperature

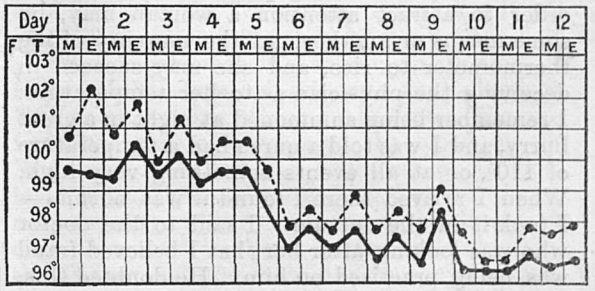

Chart 3.—Showing the temperature in the axillæ after hæmorrhage implicating the corpus striatum. The dotted line shows that in the axilla on the side opposite to the hæmorrhage; the straight line that on the same side as the hæmorrhage.

in the two axillæ, and that after the rise of temperature has passed off the temperature is often subnormal. When you do not get this rise it is often because the hæmorrhage has been so severe that there has been great

collapse, and the temperature has thus fallen; but then it may rise above normal later.

There are many other examples of disease of the central nervous system causing considerable temperature. Going back to Dr. J. H. Bryant's paper, which is full of good material, out of 250 cases in the hospital of fractured skull, ten had a temperature due to the damage to the brain. I have known a temperature of 107·4° in cerebral hæmorrhage, 107° in cerebral softening, 108° in cerebral tumour, 108° in delirium tremens, 108·4° in chorea, and I saw a child in convulsions once with a temperature of 109°. So that the part played by the nervous system in causing considerable rises of temperature is beyond all cavil.

Now we will pass on to a very interesting group of temperatures. You will find people talk about the hysterical temperature. Before you determine that any man or woman has a hysterical temperature, you must be careful that no fraud is being practised, because in order to attract attention a woman may, by some means or another, get the mercury of the thermometer to rise, and she may succeed in deceiving the physician as to her temperature. I remember being summoned at night in a great hurry, and I was told a nurse had a temperature of 110°, or at all events something very high. When I arrived there I found it was normal—I took it in the rectum. I said to the doctor who was looking after her that I believed fraud was being practised on him. He doubted this. Next morning he came to call on me, and said he had found how the nurse had done it. She had put a very hot water bottle into her axilla immediately before he took the temperature, so she had heated up her axilla. There are many ways in which fraud may be attempted. Doctors at public schools have to be on their guard. I know of one boy who always put his thermometer in his tea, and he was kept in the sick room for a week.

We will now leave the question of fraud and turn to genuine hysterical temperatures. Here is a chart (Chart 4) from a woman æt. 30, which represents eight weeks' temperature. She had a temperature like that for six weeks before I saw her; therefore her temperature was raised in that curious way for fourteen weeks. She was seen by at least a dozen doctors, and every known means of investigation was employed. Her blood was examined for bacteria, lumbar puncture was done and the cerebro-spinal fluid examined, and every means known to medicine were employed to find out why the temperature was up, but it was never found out. There were many things that made it likely that it was hysterical. For instance, her pulse and respiration did not rise in proportion to the temperature. When the temperature was normal she was perfectly well, and in the afternoon of a day on which the temperature was raised she would become wildly delirious and shout, so

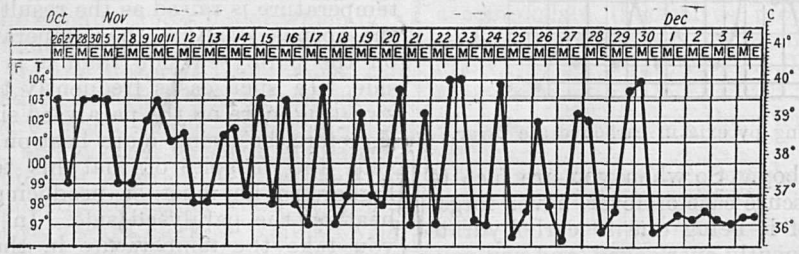

Chart 4.—Hysterical pyrexia.

that people were afraid that the neighbours would object to her being in the house. Then the temperature would fall and her shouting cease. Every one of the dozen doctors who saw her was convinced that there was no organic disease and no fraud; and the way the illness terminated bears that out. One day the temperature dropped, as it had done many times before, but, to everybody's surprise, it remained normal. It is now six years ago, and it has been normal and she has remained well ever since. So the sudden termination and the character of the condition seems to show that it was an instance of hysterical pyrexia. These are so uncommon that I should like to show you another one (Chart 5). It is the temperature of a nurse who was engaged to be married, and a few hours before the wedding she found that the man whom she was about to marry was already married. That happened about a month before I saw her. The doctor, a well-known Guy's man, who had been looking after

her, had been seeing her for three weeks, and during that time her temperature had been like this. The doctor invariably took the temperature himself night and morning, he was so interested in the case. There was no fraud. The woman appeared perfectly well, she took her food well, she had not a proportional rise of pulse. The same thing happened as in the last case; suddenly the trouble all ceased, the temperature fell to below normal, and remained there. So, though I would have you be cautious about diagnosing hysterical temperatures, for they are rare, I want to show you that such a thing can occur, and here are two genuine cases. I do not think you should say a patient has a hysterical temperature until you have had her under observation for at least a week, so as to give you every opportunity of excluding every other cause than hysteria.

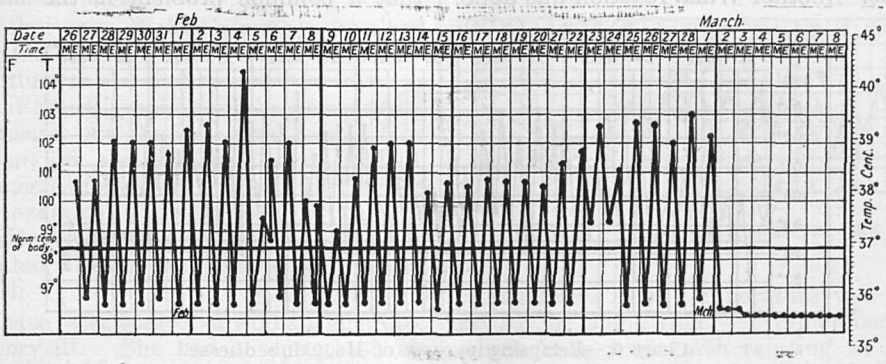

Chart 5.—Hysterical pyrexia.

We will now leave the nervous system. You can learn a great deal, when investigating the cause of a rise of temperature, by examining the blood. When there is pus anywhere there is usually an increase in the polymorphonuclear cells, but that is of much less importance than you would think, because when there is much increase in polymorphonuclear cells you generally know pus to be present from other signs, and often there is considerable pus but no increase in the polymorphonuclears. Only the other day I had some difficulty in persuading a surgeon to explore a swelling which contained pus, because it was argued by some that it was hardly likely that pus was present because there was no increase in the polymorphonuclear cells. In some fevers, such as typhoid fever, there is a diminution in the number of the polymorphonuclears in the blood. Another object in examining the blood is that sometimes you can detect the parasite which is causing the disease. You can in malaria, in blackwater fever, in relapsing fever, and in sleeping sickness, as well as in tic fever and other illnesses. You know that here we often look at the blood to see if we can find a micro-organism in malignant endocarditis. It seems so obvious that the blood should be examined when we suspect a patient has got a disease due to a micro-organism, that clerks are naturally disappointed at finding that not more is learnt from it. That is because the micro-organisms are often not sufficiently numerous to be found in the amount of blood that can with safety be taken. Examination of the blood is not so important, therefore, as you might think, because if the case is one in which the diagnosis is in doubt, it is usually such a mild case that you do not succeed in detecting the organism. You have to remember that sometimes pyrexia may be due to syphilis, then the Wasserman reaction will put you right. Examining the blood will often help you by an agglutination reaction, *e.g.*, in typhoid fever, Malta fever, dysentery, and glanders. But there again nothing is perfect. The unfortunate part of examining the blood by the Widal reaction for the diagnosis of typhoid fever is that, generally speaking, the reaction is not present until the tenth day of the illness, or even later, and it is just in the early stages of the disease that you wish to make the diagnosis. Frequently we have clinically determined that the case is one of typhoid before the Widal reaction is positive. The last case of typhoid that I saw was that of a man who had pyrexia of which we did not know the cause. Two Widal reactions were done, one about the seventh day, and one about the eleventh day. They were both negative. He had considerable pyorrhœa, and so all his teeth were taken out and the mouth cleaned, hoping that the mouth

condition was the cause of his temperature. But it made no difference to the temperature, and on the fifteenth day we got an excellent Widal reaction, and there were plenty of spots, so we were able to tell the cause of his pyrexia quite as soon by the spots as by the Widal reaction. I was glad of the opportunity to persuade him to get rid of the pus in connection with his teeth, but the failure of the Widal for a time led us to take a wrong view of the cause of his temperature. Still, it is a very valuable reaction. I am often asked whether the Widal reaction can be obtained in any other disease. I can give you an instance showing you that it can, but it is very rare. A woman came to Clinical some years ago, and the Widal reaction was tried, but was negative. That was done because we thought she had typhoid fever. Later on we came to the conclusion that she had malignant endocarditis. Another Widal reaction was done, and it was positive. She died, and a bacteriological examination of the blood and spleen were made. She certainly did not have typhoid fever, but she did have streptococcal malignant endocarditis. It might be said in criticism that she gave the Widal reaction because she had had typhoid fever before she came in, because the Widal reaction persists for some time after the fever has passed away. It has been known to persist as long as twenty-six years, but that is very exceptional; but this cannot explain the positive result of the second Widal reaction, for the first was negative. Sometimes the opsonic index may help you, but this must be estimated very carefully by an expert, and more than one observation must be made.

Leaving the bacteriological examination of the blood, I want to remind you that diseases of the blood will cause a rise of temperature. It is the rule in pernicious anæmia. Dr. Rippmann gave me the chart shown on this slide, as a good example of the chart of a patient who was in this hospital with pernicious anæmia. During the many weeks the patient was under observation there was considerable rise on many occasions, and if you were not aware that pyrexia did occur with pernicious anæmia you might be incorrect in your diagnosis. Often the temperature is raised in Hodgkin's disease. By far the most extraordinary case in point that I know is that of a woman whose case was published by Dr. Frederick Taylor, I show you part of the chart (Chart 6). The original chart extended over a year and six days. You will see the extraordinary rises of temperature which were produced by Hodgkin's disease in this patient. Not long ago there was a child under my care who had acute lymphatic anæmia, and there was considerable rise of temperature.

Examining the cerebro-spinal fluid will sometimes help you to find out the cause of a rise of temperature. Every ward clerk knows that a common problem in the hospital is to have a child brought in who has fever and retraction of the head; and the question is, has the child got meningitis, or has it not? You do a lumbar puncture, and if the fluid is turbid, if there are cells in it, if it contains albumen, or if you can find bacteria in it, you know that the cause of the temperature in the child with retraction of the head is that it has meningitis. Very often the finding of the bacteria will enable you to know from what form of meningitis the child is suffering.

The next fluid, the examination of which will sometimes help you, is the urine. And that is not nearly often enough looked at. Examining the urine will sometimes help you to clear up very obscure cases of pyrexia. You may find organisms which are the cause of pyrexia when the urine contains no blood, no albumen, and no casts. Last year there was a boy in John ward who had had several rigors during five weeks. In one of these rigors the temperature was 107°. When he came into the hospital he had suppression of urine. There was nothing he

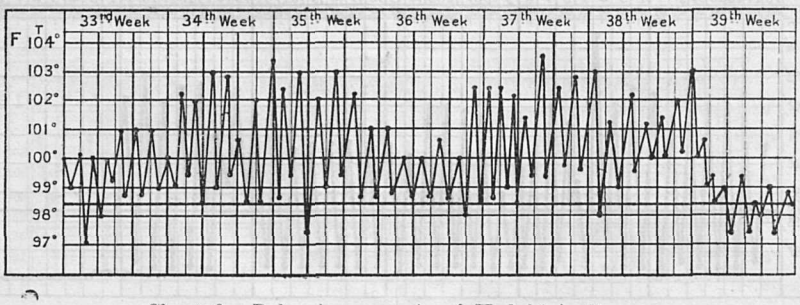

Chart 6.—Relapsing pyrexia of Hodgkin's disease.

complained of when he came in except these rigors. On very close questioning he admitted to a little pain at the end of the penis, but we questioned him so thoroughly before he admitted this, that it might almost be said we used leading questions. We examined him with the X-rays, and we did everything we knew to find out what was the matter with him, and which would account for this high temperature and the rigors. After a time, fortunately, this suppression of urine passed off, and what he passed contained no blood, no albumen, no casts, and to look at, there was nothing wrong with it. We sent it to the bacteriological laboratory, and the report was that the centrifugalised deposit was a pure emulsion of streptococci. We made a vaccine from these, he was vaccinated, and he got well and went out. The cause of that condition would not have been found out if we had not examined the urine.

Take another case, that of a woman who had a pyrexial attack thought to be due to influenza. After the influenza she had hæmaturia. It was then thought the original attack had been acute Bright's disease, but she had no œdema. The bleeding went on, she was very seedy and ill, and many suggestions were made. At last the urine was examined bacteriologically, and a pure emulsion of bacillus coli was found. She was vaccinated with an autogenous coli vaccine and got well.

Another case was that of a woman aged 45, who was very ill. She had a septic rash all over her body, and there were blood and pus in her urine. In her case, therefore, there was something abnormal to see in the urine, but in the two previous cases nothing wrong was found until it was looked at bacteriologically. This woman had rigors, a rapid pulse, and sweating, and she had gout, and was considered to have gouty cystitis. If you had seen her with me on the night I first saw her you would have regarded her as a dying woman. She had coli cystitis and pyelitis and got well after vaccination. But the most common cases of obscure pyrexia to be cleared up by examining the urine are some met with during pregnancy. At the seventh month of pregnancy a woman became ill, and had a continual rise of temperature, as shown by the slide before you. She was a pale, thin, anæmic woman, and she had a hæmic murmur. She was seen, and the hæmic murmur was recognised. The husband was much frightened by being told that the woman had malignant endocarditis. As she did not get better the urine was examined bacteriologically, and a pure emulsion of the bacillus coli was found in the centrifugalised deposit. She was vaccinated, and, as is usually the case in these coli infections of the urine in pregnant women, she got better, and she and the child did very well. I do not suppose for a moment that the excretion of the bacteria in the urine is the cause of the rise of temperature; far from it. Those that are in the urine probably have nothing whatever to do with keeping the temperature up, because they are practically outside the body. But from examining the urine we learn that micro-organisms are in the blood, and by finding them in the urine we know what organisms are infecting the blood.

Over and over again I have known forgetfulness of the fact that the temperature may be raised in malignant disease lead to an erroneous diagnosis. I show you the temperature chart (chart 7) of a man who had malignant disease

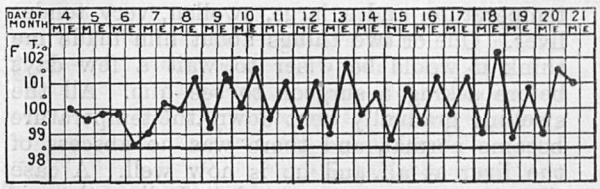

Chart 7.—Malignant disease of the liver.

of his liver. The temperature was constantly raised for some time. I remember a patient whose case was worth relating as illustrating this point. A man had a large hard liver, his temperature was raised for weeks. His wife was anxious, and fresh doctors were being called in, and we had the greatest difficulty in persuading the people who were called in that the man had not got an abscess. At last a doctor was called who was carried away by the high temperature, and said he thought there must be some pus, and accordingly a laparotomy was done, the liver was examined, but there was no pus there. It was simply a rapidly-growing growth. So do not forget that rapidly-growing malignant disease may cause a rise of temperature. Whether or not it is that there is some general bacterial infection in people who have a growth, and that is why the temperature is up, or whether it is that the growth itself is the cause of the rise of temperature, I do not know; there is much to be said for either view. Talking of the liver reminds me that cirrhosis of the liver will cause a rise of temperature; I show you a slide from a case of that condition, and you see the temperature is considerably raised (chart 8).

Speaking of the liver reminds me that we do see, in this country, people with a tropical liver. More than once in my life this has

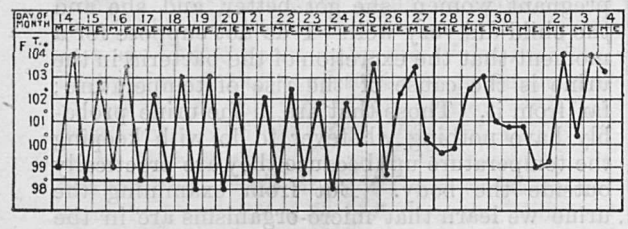

Chart 8.—Cirrhosis of liver.

happened to me. A telegram was sent from Marseilles to a Nursing Home in London, asking for a room to be made ready for a man who was coming overland because he had an abscess of the liver. When I saw the man, as I did soon after his arrival, he had a raised temperature, and a large, swollen, very tender liver. One or two things about him made me think it would be wiser to wait a few days before asking a surgeon to see him. All the swelling gradually went down, the temperature became normal, and there was no abscess of the liver at all, and he is now well. A case like that is common enough in India; there is a definite disease, tropical liver, in which the liver is enlarged, the temperature raised, and in a few days the patient gets better. You are apt to forget its existence in England. I have known other cases in this country in people who have come home from India.

Pylephlebitis is a source of error, but it is rare, and it is difficult to diagnose unless you are on the look out for the symptoms. Another cause of error in interpreting pyrexia is the presence of attacks of inflammation of the gall bladder. A patient may have irregular shivers and fever, and be better for a few days, and after a week or two another attack comes on, and this sort of thing goes on time after time. What is the matter is that he has a bacterial infection of his gall bladder, but this may be overlooked, as may be the presence of pylephlebitis.

But, after all, the most frequent cause, which we fail to discover, of rise of temperature is deep-seated pus, subphrenic abscess, for example. I remember the case of a man who had repeated rises of temperature over two or three years, lasting three days at a time, which were always said to be due to influenza. One day on examining his chest it was noticed there was a slight addition to the hepatic dulness on its upper margin, and a needle inserted at the spot of tenderness revealed a deep abscess in the liver. That was drained, and he was better. As a rule, people forget minute collections of deep-seated pus, and they are led astray because sometimes these collections are so small that they do not lead to leucocytosis. One of the most valuable aids in finding these deep-seated collections, is the fact that often the patient is tender over where the abscess is; and that will guide you as to the spot at which to insert the needle. Sometimes you can find it by careful examination with the X-rays. Some collections of pus show black with the X-rays.

You must have seen cases in which a difficulty has arisen because a patient with pneumonia has a temperature which continues raised after the crisis. The temperature comes down, and remains down a day or two, and then goes up again. In those cases there is generally an empyema, which may be very difficult to find, because it may be small and may lie among a large amount of lymph; it may be between the lobes of the lung or between the lung and the diaphragm. All that you can do in such a case is to examine the patient most carefully, looking out for spots of extreme dulness, and searching for a tender spot, X-raying the patient, and, indeed, take all the care possible. Those who have clerked for me in the last two months know, to their bitter experience, the evil effects to the patient of failing to find empyemata early, because you know the case of the poor woman who, last time, was in No. 10 bed in Mary ward, and has spent years in hospitals having pieces of rib taken away in order to get the chest to fall in, because an empyema originally got left so long that when the chest was opened the lung would not come forward.

Pus in connection with the teeth you may miss sometimes, and pus in connection with the various sinuses about the face and nose is often overlooked. It is not uncommon to be told a patient has bronchitis. You find the sputum contains pellets of pus, but the key to the case is that there is a small empyema which is discharging into the lung and causing bronchitis.

Malignant endocarditis is frequently overlooked, but we have already mentioned that, as a cause of pyrexia in this disease, there is great help from variations in the murmur, from the presence of emboli, from the sweats and rigors, but although rigors often help you, they are often absent. Unfortunately, leucocytosis is often absent in malignant endocarditis.

Another cause of pyrexia which you cannot be too careful about is tubercle. You can only

discover whether a patient's obscure fever is due to tubercle by going over the case very carefully, examining the lungs and the expectoration, noting the rapidity of respiration, and whether the patient is getting livid, and doing a tuberculin test, which, however, only shows that the patient has tubercle, not that his pyrexia is due to tubercle. Examine the patient to see that there is no tubercle in the genito-urinary apparatus, perhaps an opsonic index will help. An X-ray examination of the lungs often will. And even after all this care it will often turn out that you have overlooked pyrexia due to tubercle. Some cases of obscure pyrexia are rheumatic. There, again, you can only take every possible care before you conclude that the case is not rheumatic.

We have had to cover so much ground in an hour that this lecture is necessarily incomplete, and I have only alluded without detail to the diagnosis of causes of pyrexia; the only means of avoiding mistakes is to try to remember what a number of things there are which may cause a rise of temperature.

Guy's Hospital Debating Society.

Introductory Remarks by the President, Dr. Lauriston Shaw.

At the opening meeting of the session, held on October 19th, Dr. Shaw said :—

In taking the chair at this, the first meeting of the twentieth session of the Debating Society, I should like to congratulate the Committee on the extremely interesting programme that they have prepared for the session's work. The subjects selected for discussion range over a very wide field. While one or other of them must appeal with very special force to large groups of members, there is none which is not likely to arouse considerable interest amongst medical students generally.

I am confident that nothing adds more to the real educative influence of the curriculum of study at Guy's Hospital than a large attendance and keen discussion at a meeting of the Debating Society.

It is stated on the fixture card issued by the Committee that the Debating Society was founded for the purpose of giving men an opportunity of discussing among themselves subjects of general and professional interest, and thus affording them the means of acquiring the art of public speaking. The aim is certainly a good one, and it is modestly stated. I would rather put it that the object of a debating society is to arouse a man's interest in public questions and to enable him to understand them. It is true that in the process he acquires the art of public speaking, but the man who has or acquires this art without possessing an interest and a knowledge of public affairs is a dangerous and troublesome person. Doubtless, however, the framers of this exposition of the objects of the Society recognised that its members were all destined to be medical men, and that every medical man has in him a message to the public if only he has the capacity to deliver it.

Never was there a time when it was more necessary for medical men to be able to take their part in public affairs—an ability which is always severely handicapped in those who have not acquired the art of public speaking. The profession of medicine after the introduction of the National Insurance Bill, whether this actual Bill or some successor on similar lines is ultimately passed, can never again be the entirely private affair that it has been in the past. However much the majority of medical men may regret this fact they are bound to recognize it as inevitable. The profession is going into partnership with the public in the business of curing and preventing disease. Unless the profession is to take the position of a very junior partner it will be necessary in the local medical committees, the local health committees, and similar bodies, for representative members of the medical profession to voice the views of their colleagues and to display administrative ability. The scientific experience that you gain in the laboratory, the tact and sympathy you acquire in the wards, and the profound knowledge you obtain in the Wills Library, valuable as they are, will not enable you to take your part in this work. It is here in this Debating Society, taking your share as a private member, as a member of committee or an officer, that you will qualify yourself for the task. By the experience you gain here you will become capable of helping the profession to bring its splendid services to the large number of those who, for want of organisation in the past, still remain the pitiable subjects of preventible ill-health and suffering.

I would ask you, therefore, gentlemen, to do all you can to supplement the efforts of the Committee to extend the benefits of this Society by attending regularly yourselves and inducing others to come and take part in the debates.

Change of Address.

Thos. Carr, M.D., from 15, Albert Terrace, to 9, Carlton Terrace, Blackpool.

Lieutenant H. F. Joynt, M.B., B.S., R.A.M.C., from The Depôt, Hounslow, to Military Hospital, Tempe, Bloemfontein, O.R.C.

W. A. Phillipps, M.D., from Downside, Epsom, to 72, Ashley Gardens, S.W.

W. E. Watson, L.D.S., from 17, Golden Square, Aberdeen, to Leavy Greave House, Sheffield.

J. H. Williams, L.D.S., from 21, High Street, to Woodbourne, Knoll Road, Camberley, Surrey.

E. P. Poulton, M.A., M.B. Oxon., M.R.C.P., Radcliffe Travelling Fellow, from the College, Guy's Hospital, to Bavaria Ring 33 Munich.

Guy's Hospital Past and Present Nurses' League.

A Course of Six Post-Graduate Lectures will be given in the Nurses' Home on Tuesday evenings, at 8 p.m.

Oct. 31st. The Nursing of Tropical Diseases. Miss A. Park, late Matron, Civil Hospital, Kandy, and Night Superintendent, *pro. tem.*, Guy's Hospital.

Nov. 7th. New Methods of Treatment in the Gynæcological Wards. Mr. R. Davies-Colley, M.C., Demonstrator of Anatomy, and late Obstetric Assistant, Guy's Hospital.

Nov. 14th. Ditto. Ditto. Ditto.

Nov. 21st. New Methods of Treatment in the Eye Wards. Mr. W. Anderson, M.B., Ophthalmic Assistant, Guy's Hospital.

Nov. 28th. Ditto. Ditto. Ditto.

Dec. 5th. Modern Nursing Methods in the Wards. Miss A. Park, late Matron, Civil Hospital, Kandy, and Night Superintendent, *pro, tem.*, Guy's Hospital.

The fee for the Course will be :—Members of the Nurses' League, 5s. ; Non-Members. 7s. 6d. The Lectures will be printed in pamphlet form, and sent post free to subscribers as soon as possible on completion of the Course. Intending subscribers should send in their names to the Matron at once.

Appointments.

Medical School Appointments.

The following appointments have been made by the House Committee upon the recommendations of the Medical Committee :—

Clinical Assistants in Medical Wards.—Messrs. C. Warner (Dr. Hale White) ; W. J. D. Smyth (Dr. Pitt) ; R. S. de C. Bennett (Sir Cooper Perry) ; W. E. Williams (Dr, Shaw).

Clinical Assistants in Surgical Wards.—Messrs. H. G. Crawford (Mr. Symonds) ; L. P. Harris (Mr. Lane) ; H. C. Godding (Mr. Dunn) ; W. K. Fry (Sir Alfred Fripp).

Ophthalmic Dressers.—Messrs. E. R. Hart and T. S. Allen (Mr. Eason, November 1st) ; E. C. Peers and Philip Smith (Mr. Ormond) ; T. P. Cole and D. A. Davies (Mr. Eason, December 16th) ; M. Pern and C. A. R. Gatley (Mr. Ormond).

Surgeons' Dressers.—Messrs. F. B. Bull, W. H. Ogilvie, W. R. Reynell, J. A. Martin, A. M. Zamora, W. L. Webb (Mr. Symonds) ; H. Sharpe, E. M. Mahon, G. D. Eccles, F. Collar, A. C. Clifford, D. V. Pickering (Mr. Lane) ; C. Sherris, K. J. T. Keer, O. G. Morgan, J. L. Percival, F. A. Hampton, D. W. John (Mr. Dunn) ; R. A. Fawcus, R. C. Ozanne, N. Garrard, E. G. Martin, J. A. Ryle, R. Creasy (Sir Alfred Fripp).

Clerks in Nervous Out-Patient Department.—Messrs. S. S. Crosse, B. R. Parmiter, J. L. M. Symns.

Externs.—Messrs. W. Matthews, G. E. Genge-Andrews, H. Webb, E. Lawrence Jones (November) ; F. C. Newman, V. F. Soothill, J. P. Jones (December) ; T. A. Townsend, R. S. de C. Bennett, R. D. Passey, A. L. Shearwood, A. Tilbury (January).

Naval and Military.

Fleet Surgeon W. W. Pryn, R.N., has been promoted to the rank of Deputy-Surgeon-General in His Majesty's Fleet, October 12th, 1911.

Acting Surgeons R. A. Rankine and Q. H. Richardson have been confirmed in the rank of Surgeon in His Majesty's Fleet. Acting Surgeon R. A. Rankine also gained the Silver Medal for Second Place in the combined London and Haslar Examinations.

Surgeon G. Carlisle, R.N., has been appointed to the *Vernon*, additional, for the *Furious*.

Captain M. H. Thornely, F.R.C.S. Edin., I.M.S., has been promoted Major, July 27th, 1911.

Lieutenant on Probation C. A. Wood, M.B., I.M.S., having completed his course at the R.A.M. College and at Aldershot, is finally admitted to the Service. His Commission will bear date from January 28th, 1911.

Territorial Force.

1st London (City of London) Field Ambulance, R.A.M.C. Lieut. A. D. J. B. Williams (from the List of Officers attached to Units other than Medical) to be Lieutenant, September 7th, 1911.

Civil.

M. W. Cohen, B.A., M.B., has been appointed Clinical Assistant, Chelsea Hospital for Women, Fulham, S.W.

E. J. F. Hardenberg, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Surgeon to the "N" Division, Metropolitan Police, Chingford.

R. C. Lawry, M.R.C.S., L.R.C.P., has been appointed Medical Officer of Health, Penzance.

Professor J. T. J. Morrison, M.B. Cantab, F.R.C.S., has been appointed one of the Medical Referees under the Workmen's Compensation Act (1906), for County Court Circuit No. 22.

T. Turner, M.B., B.S., has been appointed Assistant Surgeon to the Princess Alice Memorial Hospital, Eastbourne.

Notice.

Revision Classes in Medicine for January, 1912.

There will be a written examination in Medicine for the above class on Monday, November 13th, at 10.30 a.m., in the Committee Room, Medical Office.

The Differential Diagnosis of Renal Enlargements.

By HERBERT FRENCH, M.D.

(*Continued from page 451.*)

F. *The points of distinction between a renal tumour and impacted fæces in the colon.*

a. There is usually a history of obstinate constipation, and possibly of slight attacks of intestinal obstruction.

b. The tumour is of an irregular form, usually more or less cylindrical, but it varies in shape according to the amount of fæces present.

c. It may be moveable, and if watched from time to time its position may be found to change.

d. On manipulating it with the fingers it may feel like a mass of dough, and it may be possible to mould it into various shapes.

e. The tumour may disappear altogether after the administration of purgatives or enemata, followed by the passage of a large motion.

G. *Points of distinction between renal enlargement and appendicitis.*

The site of the tumour formed as a result of appendicitis, either from the production of an abscess or by matting together of the adjacent parts, depends, to a great extent, on the length and position of the appendix vermiformis. The latter is most variable. It may point upwards and outwards towards the spleen, downwards into the pelvis, across the abdomen towards the left iliac fossa, or upwards and outwards behind the cæcum towards the right kidney. The tumour may be found in the right iliac fossa, hypogastrium, pelvis, left iliac fossa, umbilical region, or even in the left lumbar region. In a post-mortem examination on a case of perinephric suppuration one has found the tip of the appendix vermiformis adherent to the pelvis of the right kidney. When, therefore, the appendix vermiformis lies behind the cæcum and points upwards towards the right kidney, if it becomes inflamed the tumour which may result is often difficult to distinguish from a perinephric abscess or a renal tumour.

a. In the case of appendicitis, the tumour is deeply situated in the loin, but it is usually much lower than is a renal tumour.

b. The tumour in the case of appendicitis is deeply situated in the loin, and can be best felt by means of bimanual palpation like a renal mass. It is, however, usually much lower than a kidney tumour.

c. The tumour in appendicitis is fixed, and does not move downwards at all when the patient takes a deep breath. A kidney tumour nearly always moves downwards under similar circumstances.

d. In appendicitis the tumour is tender, and a sense of fluctuation may be obtained, but these signs are not distinctive, as they may also be found in cases of perinephric abscess and pyonephrosis.

e. A history of an acute onset with severe abdominal pain and tenderness in the right iliac fossa or lower part of the right lumbar region, with constipation, vomiting, and pyrexia would be in favour of appendicitis, especially if there had been previous attacks of a similar nature.

f. Rectal examination should not be omitted; if there is acute local tenderness of the right anterior aspect of the rectum, appendicitis is more likely than renal enlargement, and if an actual bulging can be felt per rectum, this is still more likely.

H. *Points of distinction between renal enlargement and aneurysm of the abdominal aorta.*

An aneurysm of the upper part of the abdominal aorta may leak, and the blood may extravasate towards the right or the left into the perinephric tissues and give rise to a large tumour in one loin which may resemble or be mistaken for renal tumour. Fortunately the lesion is not at all common, although one might give an account of a case of this nature which was thought to be a sarcoma of the kidney, even after an exploratory operation, to illustrate the difficulty which may arise in making a correct diagnosis. Abdominal aneurysm, however, is an extremely rare disease, and in consequence the difficulty is not often likely to arise.

I. *Points of distinction between a renal and a suprarenal tumour.*

On account of the close proximity of the suprarenal bodies to the kidneys, it is practically impossible to distinguish by physical methods between tumours of these organs. A new growth of the suprarenal body, if of any appreciable size, involves the adjacent part of the kidney and practically becomes a renal tumour. The absence of hæmaturia must not be relied on, for in many cases of malignant growth of the kidney, especially sarcoma, hæmaturia is absent. There are two points of difference which may possibly be made out, viz.:—

a. Suprarenal tumours push the colon downwards, renal tumours usually push it forward.

b. In children an abnormal development of pubic hair and of the genitals may be noticed sometimes: in some cases as early as the second or third year in the disease known as hypernephroma, which is as often a suprarenal as a renal lesion.

The Varieties of Renal Enlargement.

Having decided that the kidney is enlarged in a given case, the precise cause of this enlargement has to be determined. The following are the chief causes of palpable enlargement of the kidney:—

1. Hypertrophy (from absence, destruction or removal of the other).
2. Hydronephrosis.
3. Pyo-nephrosis.
4. Hæmato-nephrosis.
5. Polycystic disease.
6. Cyst (single).
7. Hydatid cyst.
8. Sarcoma.
9. Carcinoma.
10. Abscess.
11. Gumma.
12. Calculi.
13. Aneurysm of the renal artery.

A large *single kidney* may occur as a result of:—

a. Congenital absence of one kidney.
b. Atrophy of one kidney.
c. Fusion of the two kidneys into one.

There are no characteristic symptoms or physical signs pointing to this condition if the kidney substance is healthy and the organ is in its normal position. If, however, it is displaced, moveable, or diseased, symptoms characteristic of this particular morbid condition may be found. An examination with the cystoscope and the passage of a ureteral catheter may be important aids towards a correct diagnosis.

The following is an illustrative case of *hypertrophy of the left kidney, right kidney absent, nephrotomy, and nephrorrhaphy, pyæmia.*—Ellen L. was admitted into hospital on January 8th for a tumour and pain in the left lumbar region. She had suffered from a dragging pain in her loin for two years, and in the previous March she noticed for the first time a lump in her left loin. In May her urine contained blood, and she suffered from painful micturition and severe pain in her left loin. She also stated that occasionally after passing a good deal of urine, the tumour diminished in size. On admission a hard, rounded, moveable tumour was felt in the left lumbar region measuring 5 inches by 3½ inches. The lower border was one inch above the iliac crest, and the upper border was under the costal margin, but the hand could be placed between it and the ribs. There was neither pain nor fluctuation produced on manipulation. On January 15th, some pus was found in the urine. On January 26th the patient passed 68 oz. of clear urine. On February 11th she was examined under an anæsthetic and then operated on, as she was considered to be suffering from hydronephrosis. The large left kidney was exposed and explored with a trochar and cannula, but no fluid came away. It was then incised, and its pelvis was explored. As nothing definitely abnormal was found, and it appeared to be moveable, nephrorrhaphy was performed. Suppuration followed, and on February 24th death resulted from pyæmia. On the day of her death her right wrist joint was found to be swollen and red.

At the post-mortem examination there was no trace of the right kidney. The right ureter was found opening into the bladder, but higher up it became rudimentary, and ended in a small mass of fibrous tissue. The left kidney was much hypertrophied, and weighed 14½ oz. It contained an abscess in the region of the incision, and there was some pus in the pelvis of the kidney. There was an infarct in the base of the left lung, and some pus was found in the right wrist joint.

This case occurred before the days of cystoscopy; it serves to illustrate very forcibly the need for cystoscopic determination of the activity of the other kidney before it is finally decided to excise one.

Pyonephrosis.

The pelvis and calyces of the kindey are dilated and filled with pus or pus and urine. In extreme cases the kidney may be converted into a mere sac containing pus, the wall consisting of a thin shell of kidney tissue. It gives rise to a tender and painful tumour presenting the characteristics of a renal enlargement. The chief symptoms are pain in the back, tenderness in the loin on pressure, irregular pyrexia, rigors, wasting, anæmia, and pyuria. The urine is usually turbid when it is passed, and after standing, a pale yellow creamy deposit falls to the bottom of the glass. The reaction is acid if the condition is secondary to, or associated with, cystitis, when it becomes alkaline, and the urine is viscid and glairy; albumen is present and in some cases blood. The albumen is dervied from the liquor puris; if, however, a larger quantity of albumen is found than can be accounted for by the pus, it indicates that in addition to pyonephrosis there is also some morbid change in the kidney substance. The pus varies in amount, and is liable to be intermittent, a condition which is dependent on whether the ureter is blocked or not. Microscopically, pus cells, transitional epithelial cells, crystals of oxalate of lime and uric acid, if calculus is the cause, and if the urine is alkaline, crystals of triple phosphates. Renal tube casts may also be found occasionally.

If the amount of pus in the urine varies very much, and after the passage of a large quantity the tumour is found to have diminished in size and the urine to have become clear or clearer, the diagnosis of pyonephrosis is evident. The condition which is most likely to be mistaken for pyonephrosis is tuberculous kidney; it may, indeed, be that there is a tuberculous pyonephrosis from tuberculous obstruction of the ureter. The urinary deposit, best obtained by centrifugalising the urine, should be stained and examined for tubercle bacilli; if they are not found, tuberculous kidney cannot be definitely excluded, and if any doubt remains, a guinea-pig should be inoculated to see if it succumbs to tuberculosis. It is also important to examine the other viscera carefully in order to see if there is any evidence of tuberculous disease affecting them. If the pyonephrosis is the result of a renal calculus, an X-ray examination, if conducted by a competent operator, will show whether a calculus is present or not in a very large percentage of cases. A history of previous attacks of renal colic, of hæmaturia, and pain brought on by exercise, and of the presence of oxalate of lime or uric acid crystals, will point to calculous pyonephrosis. A perinephric abscess may be secondary to a pyonephrosis or independent of it, but in either case may simulate it. The swelling is more diffuse and indefinite in perinephric abscess, and the skin over the loin may be red and œdematous: the leg and thigh may be flexed on the same side, and there is generally a greater leucocytosis.

If, especially in calculous cases, the ureter is completely obstructed, at first the amount of urine may be diminished; if it is only partly blocked, the amount of pus present may vary from time to time; if the obstruction varies so that at one time the ureter is blocked and at another time it is patent, in the former condition the urine may be quite clear and free of pus, whereas under the latter a great deal of pus may be passed almost suddenly. Microscopically pus cells, red blood corpuscles, transitional epithelium, and in the early stages hyaline casts may be present. If the condition is due to renal calculi, crystals of oxalate of lime or uric acid, or both, may be found, and when the urine is alkaline, crystals of triple phosphate.

If the pyonephrosis is the sequela of a Bilharzea hæmatobia infection, melon seed shaped ova, with a spike at one end, may be found and are quite characteristic.

(*To be continued.*)

Sport.

Rugby Football.

GUY'S v. ROSSLYN PARK.

The ground was very slippery at Honor Oak Park on Saturday, October 14th, when Rosslyn Park were the visitors. They brought down a good side, which included the Hospital's old Cup Tie opponents Heale, late of the London, Coombs, late of Bart.'s, and H. Smith and J. B. Rosher, of Charing Cross, were also in the visiting team.

For some time after the commencement Guy's held the upper hand, but the going was so treacherous that except as far as regards territory, Guy's advantage was of little use. The backs could not complete a movement, the ball being most difficult to hold. At length Rosslyn Park worked back. Their forwards heeled smartly, but nothing came of it. It was left to Guy's to open the scoring. A try by Stranach, well led up to by the home forwards, and Moberley picking up and passing to Stranach at the right moment, led to the score. Stokes goaled. Thus, ends were changed with Guy's leading by 1 goal to nil.

The second half was well contested, but Rosslyn Park certainly got the ball very frequently from the scrums, and only superb defence kept them out. Millett, Harkness, and Lee defended grandly. Unfortunately, before long Harrington hurt his side, but he pluckily stuck to his guns, and some very judicious work of his helped Medlock to gain the next try. A third was soon forthcoming. The forwards went over irresistibly from a line-out at the 25 yard line, and Moberley touched down. The fourth and last try was by Harkness. Opposite the stand Harkness, when surrounded, punted hard. Guy's forwards and halves followed up splendidly with Harkness to the fore. The ball bounced very awkwardly for the defence, but Harkness managed to secure and gained the try. Neither of these last three tries was converted by Stokes, although his kicks were all excellently judged, and missed by narrow margins. Score: Guy's 1 goal 3 tries, 14 points; Rosslyn Park, nil. Team:—

Guy's.—H. Millett (back); L. Harrington, H. Lee, A. H. Harkness, A. L. Stokes (three-quarters); C. H. Medlock, J. E. Davis (halves); C. S. L. Roberts, W. S. Stranach, A. V. Moberley, H. Hoby, O. Parry Jones, V. Glendining, L. Horsley, A. L. Liebson (forwards).

Remarks.—All the back division defended well, especially Millett. Harrington must be very careful not to rid himself of the ball indiscriminately when tackled. His pass to Medlock for the second try was well done indeed. Davis was slow getting the ball away, but he was hampered by the grease. The forwards failed to get the ball often enough; more "push" is still wanted. The tackling by the forwards was much better, Moberley showing a great example. Hoby still goes very high and rather wildly, but his work in the loose was decidedly useful. Roberts played a great game till unfortunately he was hurt. Horsley's work in the tight was also noticeable.

GUY'S v. CAMBRIDGE UNIVERSITY.

Guy's were beaten by the Varsity at Honor Oak Park last Wednesday, by 5 tries to 1 goal and 1 try. Cambridge brought what looks like becoming a distinctly good combination. They adapted themselves to the slippery conditions much more readily than the Hospital team, and playing practically all through with more vigour and go, deserved their win. Guy's faced the sun to start with, which somewhat handicapped them in fielding several high punts, this enabled the Varsity to gain considerable ground by touch finding. But the Hospital pack were not well together, Stranach did his utmost to get them going. They were up against an eight who were putting all they knew into the loose work and shoving hard as well. The Varsity got the ball repeatedly, and from one passing movement Thorne got over with the first try. Liebson missed fielding the ball and let Blair away soon after the Light Blue forwards joined in, and bunching over the line Cumberlege gained the second try. Guy's had more of the game for a while, and Medlock was almost a scorer after charging Pienaar's kick down. After the drop out Stokes dribbled through and kicking behind the posts Medlock dashed up to score for Stokes to goal. Cambridge soon replied again; some passing and a final throw to Lewis, well taken, gave the visitors a third try, and Nield putting on a fourth, the Cambridge men changed ends leading by 12 points to 5. Greenwood had taken all the kicks at goal for Cambridge, but the angles were awkward, hence his good attempts went wide.

For a time on resuming, Guy's did well. Their forwards played hard and went for the game, and during this time Hoby charged up field and dashed over with a try which Stokes just missed goaling. Gradually the Light Blues assumed the mastery. Guy's defended well, but the ball was almost always with the visiting backs who handled smartly, a particularly fine piece of three-quarter play eventually sent Lewis over again wide out; no goal resulted, and a good game ended in favor of the University as stated above.

Guy's.—H. Millett (back); A. L. Stokes, G. B. Pritchard, H. Lee, —. Rook (three-quarters); C. H. Medlock, J. G. Saner (half-backs); W. S. Stranach, A. V. Moberly, H. Hoby, O. Parry Jones, A. W. A. Davies, L. Horsley, A. L. Liebson, M. Anthony (forwards).

Cambridge University.—L. L. Pienaar (back); A. B. Ovens, C. N. Lowe, C. Thorne, B. R. Lewis (three-quarters); B. S. Cumberlege, H. W. Thomas (halves); A. E. Kitching, J. E. Greenwood, P. C. Blair, W. C. Nield, N. Maxwell, R. S. Stafford, A. W. Symington, C. N. Tompson (forwards).

Remarks.—Without wishing to excuse defeat it must be stated that Roberts, Kennedy, and Glendining were out of the pack. The forwards do not push hard enough nor do they push altogether; this must be remedied. One must also ask them to go harder in the loose play and tackle lower with much more thoroughness. Davies and Hoby specially were going very high and often missing altogether. The backs never got going properly, they saw so little of the ball. But when they do get it, both halves and three-quarters must run straight. Millett played a good game.

Association Football.

GUY'S v. RAMSGATE ST. GEORGE'S.

On October 14th Guy's were the visitors of Ramsgate St. George's, and after a keen game, played under the worst of conditions, were beaten by 4 goals to 1. For the first few minutes Guy's were completely at sea, and Ramsgate tried Rhys Evans and the defence severely, but failed to make the most of their opportunities. Settling down, however, the Hospital carried play to the other end, and for some time the game was of a give and take character, until Spong, receiving a pass in Ramsgate's half, made an opening and beat the opposing goal-keeper with a hard drive, which, glancing off the upright, gave him no chance. Guy's, however, did not lead for long, as the Ramsgate centre, having an open goal, soon put his side level, and Rhys Evans mishandling a dropping corner kick, let the ball through his own goal, thus giving Ramsgate the lead.

Half-time arrived, and crossing over, our opponents soon started the aggressive, and only strenuous work on the part of Neely, and the fact that Rhys Evans was very much on his mettle, prevented their scoring. The forwards on several occasions successfully worked their way to the Ramsgate goal, but with only the goal-keeper to beat, threw away their chances by lack of steadiness before shooting. Two certain goals, at least, were thus thrown away, but, in extenuation, the state of the ground must be taken into consideration. Within the last quarter of an hour St. George's added two further goals through Stebbings, the Hospital defence being apparently worked out, and Ramsgate thus finished winners by 4 goals to 1. The game, perhaps, did not justify the margin of the three goals; they were the better side, and fully deserved their win. Team:—

Guy's.—Rhys Evans (goal); Russ, Neely (backs); Neale, Kyle, Camp (halves); Phillips, Spong, Veale, Coxon, Bevis (forwards).

Remarks.—Rhys Evans played an admirable game throughout. Neely was always there, and, Russ being disabled, got through a tremendous amount of hard work. Camp uses his weight well, but perhaps was not as fit as he might be, while Neale suffered from want of "studs." The forwards lack cohesion, and seem to think that once they have had a shot at goal there is no necessity to fall back and give the defence a hand. Bevis is playing at the top of his form, and Veale is always useful, and Coxon is a decided gain to the forward line. The whole team, however, must get fitter, and once they have got fit, keep so, as there are several hard games this side of Christmas.

GUY'S v. QUEEN'S REGIMENT.

Journeying to Warley Barracks on October 21st. Guy's won their first match this season against the Queen's by 3 goals to 1.

Play ruled very even for the first ten minutes or so, but Guy's soon monopolised most of the attacking, and looked like scoring on several occasions. The Queen's goal-keeper was always on the alert and cleared several deserving shots by the Hospital insides who were always testing him. Bevis and Stebbings, well fed by King at half, were always making way on the left, and a shot by the latter being mishandled by the goal-keeper, gave Guy's the lead. At times, the Queen's, whose attacks were generally in bursts, looked dangerous, but were well held in check by King and Jones, while Evans was always equal to any shots which came to him. Two or three rushes by the Queen's left wing ended in good centres, which, however, Neale and his partner at back succeeded in clearing. Just before half time arrived, Bevis, running down his wing and coming well in, put in a hard low shot which the opposing goal-keeper just managed to fist out again to the same player, who returned it to the net.

In changing ends, Guy's, still two ahead, kept play well in their opponents' half for the first quarter of an hour, but a burst by the Queen's, ending in a corner, gained them a goal, a well-placed kick being headed into the net by their inside right. Play now became very keen, and both goal-keepers were frequently called upon, Evans successfully getting the ball away each time, while his vis-à-vis was beaten by a great shot by Stebbings, who, receiving from Veale and making an opening, thus further increased Guy's lead. Just before time, Coxon, who had been conspicuous for his share in each attack, had bad luck with two excellent shots, one of which the goal-keeper handed over the bar and the other just missing the upright by inches. Team :—

Guy's.—Rhys Evans (goal); Neale, Gill (backs); King, E. L. Jones, Kyle (halves); Bevis, Stebbings, Veale, Coxon, Spong (forwards).

Remarks.—Individual criticism is almost unnecessary, the whole team playing well to a man. The forwards were on top of their form, and fortune seems to have supplied us with a pair of extremely useful insides in the nick of time. R. M. King at left half was always to the front, and Neale at left back could not have been bettered. Gill is useful and steady, but very slow at present and lacks decision. Rhys Evans was as reliable as ever, and E. L. Jones maintained his reputation for energy and fitness. Bevis is playing his best at present, and Spong, when he gets used to his new position, should complete a useful forward line.

Birth.

SOPER.—On 5th October at 344, Clapham Road, S.W., the wife of Bertram Soper, of a daughter.

Marriages.

MALLESON—VANDERMIN.—On October 17th, at St. George's, Camberwell, Herbert Cecil Malleson, of West End Avenue, Pinner, to Henrietta Frances, third daughter of Mrs. Vandermin, Peckham Grove, S.E.

POULTON—MACLEAN.—On October 3rd, at St. Peter-in-the-East Church, Oxford, by the Rev. Canon Skrine, Vicar, Edward Palmer Poulton, M.B., M.R.C.P., eldest son of E. B. Poulton, D.Sc., F.R.S., Hope Professor of Zoology and Fellow of Jesus College, Oxford, to Elfrida Mary Hamilton, younger daughter of the late Charles Maclean, J.P., D.L., late of Glenearn, Perthshire.

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE

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Passim.

WE deeply regret to announce the death of Sir Samuel Wilks, which occurred at his residence in Hampstead early last Wednesday morning. He had been ailing for the past week or two, and he became unconscious on Monday, and it was realized that the end could not be far distant.

BUT a few weeks ago Sir Samuel published a volume of "Biographical Reminiscences," which he had written during his retirement. Fittingly it serves as a memorial of a life of scientific activity, for it is to be noted that the volume consists almost entirely of an account of the discoveries which were made at Guy's both by Wilks himself and by his colleagues during the years he was associated with Guy's. Autobiographical details are confined to a few dates, as that he was born on June 2nd, 1824, passed the College of Surgeons in 1847, the M.B. in 1848, and the M.D. in 1850, F.R.S. in 1870, President of the Royal College of Physicians 1896–1899, and was created a Baronet in 1897, and so on. But Wilks' real biography is written in the titles of his papers in the "Guy's Reports," and elsewhere.

SIR Samuel Wilks died only a few weeks after his old colleague Dr. Pavy, and at first it is difficult to realise how immense is the gap in the list of our Consulting Staff caused by the loss of these two great men, who carried on the tradition of Bright and Addison, and achieved for the Guy's Medical School a fame which must last as long as there are medical schools at all. This is not the time nor the place in which to give any extended account of Sir Samuel Wilks' life and work. In our next issue such an account will be given, together with a portrait, but it may be more appropriate here to acknowledge gratefully the interest which he always took in the GAZETTE: successive editors of this journal have been delighted to receive help and encouragement as well as contributions from him.

IN the *Southwark and Bermondsey Recorder* of October 13th, under the heading of "The Scandals at Guy's," we have read with the greatest interest an excellent letter from Dr. Salter. Dr. Salter points out that the real "scandal" lies in the total inadequacy of the in-patient hospital accommodation in London at present, which is only two and a half beds to every 100,000 of the population. Dr. Salter's idea of the remedy is that the hospitals should be under state control, but, while thoroughly agreeing that reform of some kind is needed, and needed urgently, we cannot agree that nationalization of our hospitals is the solution of the difficulty. The whole success of the voluntary system, and the records of the past are eloquent of its success, has depended upon the fact that the hospitals have had at their service, for no fee at all, the finest business, administrative, and professional intellects of the

country, and by no system of State control could such services be kept. Were the hospitals under Government or Municipal control it is obvious that eminent professional and business men would not give their services without remuneration of a sort that no State could pay. The answer to this argument is that professional men are only too anxious to do hospital work, because of the experience and recognition that it gives them, but, although this applies until a man has made a name for himself, it does not affect those whose eminence in the profession is assured, and it is the services of these men that are of such great value to a hospital. In our opinion there is a remedy for hospital overcrowding, less drastic, and also, we think, more practical than the one Dr. Salter suggests. The provision of self-supporting paying hospitals for middle-class patients would greatly relieve the congestion of the free hospitals, and at the same time prevent a good deal of abuse of charity, while if the homes of the poor were a little less like pig-styes, and a little more in accordance with the elements of hygiene, a good many patients could be treated at home, without ever having to go to a hospital at all.

A CORRESPONDENT in writing of the dreary prospect which, in his opinion, surrounds the medical profession at the present day, mentions the competition of the unqualified bone-setter as one of the factors in the starvation of the unfortunate medical man. In this connection, it may be of interest to Guy's men outside to know that a discussion on "Bone-Setting," under the auspices of the Physical Society, has been arranged for December 13th. When it is added that Mr. Arbuthnot Lane is to open the discussion, and that Dr. Shaw, Mr. Steward, Dr. Beddard, and Mr. Rowlands are expected to take part, it will be evident that the meeting should be one of unusual interest.

To revert to the letter of our pessimistic correspondent, we should like to range ourselves on the side of the optimist with all the fervour that is in us. We do this while granting that all our correspondent says about the uncertainty of practice at the present day may be true, though from previous correspondence it appears that the prospect is not uniformly black. There are brighter spots here and there, or, at any rate, there are eyes which discern brighter spots, and that, after all, is the main thing. For optimism is the mainspring of action and ideals and enthusiasms. Your pessimist cannot be an enthusiast, or but rarely, for a philosophy of enthusiastic pessimism is a poor sterile affair. If the ship is really on the rocks and filling with water—if the medical profession is really underpaid and over-worked, and likely to be much more so in the future—will the pessimist or the optimist be the more likely to escape from the danger or come to the rescue? Are we to imitate those of our patients' relatives who, in the face of an apparently hopeless prognosis, are content to drift into pitiful inaction?

BESIDES, *is* the prospect so hopeless? We live at a time of crisis in the history of the medical profession, certainly, but there have been crises before, which have been safely passed through. It largely rests in our hands to mould the future of the profession, for better or worse. Much is made of the competition of quacks, and we are apt to forget that only the exceptions among pill-makers are able to build colleges or buy opera-houses with their wealth, while the generality struggle ignobly for a bare living. When we remember this, optimism cries out to us that it is better, if we must starve, to starve at an honest occupation than a dishonest, or, if we are not so unfortunate as that, better to make a modest pittance by honest practice than a princely salary by quackery. And in the same way optimism can show us rays of light, even in National Insurance Bills. And if pessimism scouts these utterances as impossible ideals, optimism answers: "Ah, it is splendid to have ideals, and there is no splendour in the losing of them, as some people seem to think, who never had any, but only illusions."

Now that regular demonstrations on selected cases in the special Out-Patient Departments, which have been advocated repeatedly in these columns, have been instituted, it seems a pity that they should not be made known more

clearly to students. It is true that the hospital is already so overgrown with notice-boards that when you have an important announcement to make, a notice-board is the last place from which you advertise it, but perhaps a small board might be reserved somewhere exclusively for Out-Patient demonstrations, so that everyone would know when they were to take place, and sometimes also the cases to be shown might be announced beforehand.

WE would remind our readers that the Guy's Hospital Ball is to be held on November 27th, at the Galleries, Prince's Rooms, Piccadilly. It has been very wisely decided not to give a Residents' Dance or a Football Dance, but to combine the two into a Hospital Ball, which should appeal to men of all years, both past and present. Tickets, price 12s. 6d., including supper, may be obtained from the Hon. Secs., A. S. Roe and G. R. Hind, the College, Guy's Hospital, and a form of application will be found inset in the present issue of the GAZETTE for the convenience of those readers who do not live in the hospital. Application for tickets should be made early, as the Committee reserve the right to raise the price after November 21st.

WE all know the extraordinarily minute and detailed description of a pain in the back which is sometimes given by our Borough patients. When to that is added the grammar and spelling of an educated (?) Kaffir, as in a letter we have received from a South African correspondent, the result is distinctly ludicrous:—

> "In to give the explaition of my Illness I heard a pain from last month Between my to sholders on my Back whick it runing down my Back in the middle of Back to my Kiddess and all along it pain so poor in my Body. The next pain is wind from my stomach up to my too sides in my chest on the front. I am your sincerely servant, —— ——."

It is announced that a debate on Women's Suffrage will be held on Monday next, November 13th, at 8.30 p.m., in the Physiological Theatre, when Dr. Hale White will take the chair. The meeting is under the auspices of the London Society for Women's Suffrage, and Miss Janet Thomson, B.A., will open the debate in favour. All connected with the hospital are invited to attend and bring a friend (lady or gentleman).

Appointments.

Naval and Military.

Staff-Surgeon R. W. B. Hall, R.N., to the *Victory* for disposal, October 21st.

Surgeon P. F. Minett, R.N., to the *Juno*, November 7th.

Major M. H. Thorneley, I.M.S., has been appointed Civil Surgeon at Shahabad.

Captain R. T. Brown, M.D., R.A.M.C., has been promoted Major, October 25th.

Captain H. O. M. Beadnell, R.A.M.C., is placed on temporary half-pay on account of ill-health, October 17th.

Major C. R. Evans, R.A.M.C., has taken up duty at Malta (in exchange).

Captain A. C. H. Gray, R.A.M.C., Clinical Pathologist Royal Infirmary, Phœnix Park, Dublin, has been selected for attachment to Dublin University (Trinity College) Contingent, Officers' Training Corps, from October 18th to November 21st.

Civil.

W. J. Burroughs, M.R.C.S., L.R.C.P., has been appointed District Medical Officer, St. Pancras Union.

F. P. S. Cresswell, M.B., B.S., F.R.C.S., has been appointed Medical Referee under the Workmen's Compensation Act, for County Court Circuit 24, 30, and 31.

T. Evans, M.B., B.S., has been appointed Resident Obstetric Officer, Leeds General Infirmary.

A. Atkins Greenwood, M.B., B.S., has been appointed Medical Officer for X-ray and Electrical Department, Hampstead General Hospital.

F. A. Sharpe, M.D., D.P.H., has been appointed Medical Officer of Health and School Medical Officer to the Borough of Chesterfield.

Professor R. J. Pye-Smith, Ch.M. Sheffield, F.R.C.S. Eng., has been appointed to represent the University of Sheffield on the General Medical Council.

H. F. Renton, M.B., B.S., has been appointed House Physician to Dr. Barrs, Leeds General Infirmary.

Oxford University.

The following degree has been conferred:— D.M., E. L. Kennaway.

Royal College of Physicians of London.

The following having passed the necessary examination has been admitted Member of the College, October 26th:

E. W. Routley, M.D. (Brux.), L.R.C.P.

Royal College of Surgeons of Edinburgh.

The following was admitted to the Fellowship at a Meeting of the College on 18th October:

C. H. Reinhold, Captain I.M.S.

Society of Apothecaries of London.

The following has been approved at the examination indicated.

FORENSIC MEDICINE.

H. N. Eccles.

Guy's Hospital Pharmacopœia.

(*Continued from page 392.*)

THE following modifications and additions to the present formulæ have been sanctioned by the Medical Committee:—

PROPOSED NEW FORMULÆ.

Collutorium Acidi Carbolici et Potassii Chloratis, Phenol and Potassium Chlorate Mouth Wash.

Take of

Liquefied Phenol...	10 minims.
Potassium Chlorate	20 grains.
Water to	1 fluid oz.

Dissolve.

To be used with an equal quantity of hot water.

Unguentum Acidi Salicylici Forte, Strong Salicylic Ointment.

Take of

Salicylic Acid, in powder	1 drachm.
Paraffin Ointment	7 drachms.

Mix.

Unguentum Diachyli Cadinum, Diachylon and Oil of Cade Ointment.

Nos. 1, 2, and 3 contain respectively 10, 20, and 30 minims of Oil of Cade to the ounce of Diachylon Ointment.

Unguentum Naphtholis Compositum, Compound Naphthol Ointment.

Take of

Beta-naphthol, in powder	30 grains.
Salicylic Acid, in powder	30 grains.
Paraffin Ointment to	1 ounce.

Mix.

Unguentum Resorcini, Resorcin Ointment.

Take of

Resorcin, in powder	10 grains.
Paraffin Ointment to	1 ounce.

Mix.

Unguentum Resorcini Cadinum, Resorcin and Oil of Cade Ointment.

Take of

Oil of Cade	10 minims.
Resorcin, in powder	10 grains.
Paraffin Ointment to	1 ounce.

Mix.

Unguentum Resorcini et Sulphuris, Resorcin and Sulphur Ointment.

Take of

Resorcin, in powder	5 grains.
Precipitated Sulphur	5 grains.
Paraffin Ointment to	1 ounce.

Mix.

Unguentum Zinci Benzoicum, Zinc and Benzoin Ointment.

Take of

Compound Tincture of Benzoin ...	2 fluid drs.
Zinc Ointment	6 drachms.

Mix.

Unguentum Zinci Boricum, Triple Ointment.

Take of

Boric Acid Ointment
Zinc Ointment
Hydrous Wool Fat
} Of each, equal parts.

Mix.

Unguentum Zinci Carbolicum, Zinc and Phenol Ointment.

Take of

Zinc Ointment	3 parts.
Phenol Ointment...	1 part.

Mix.

Unguentum Zinci et Eucalypti, Zinc and Eucalyptus Ointment.

Take of

Zinc Ointment
Eucalyptus Ointment
} Of each, equal parts.

Mix.

MODIFICATIONS OF EXISTING FORMULÆ.

Dentifricium Cretæ Compositum, Compound Chalk Tooth Powder.

The Phenol to be omitted.

Mistura Belladonnæ Composita, Compound Belladonna Mixture.

To contain 3 minims of Tincture of Belladonna, or its equivalent in Liquid Extract of Belladonna, instead of 1 minim as at present in the fluid drachm.

SERA.

The following to be kept in stock:—

Antistreptococcus (Polyvalent).
Antimeningococcus.
Antitetanic.
Antidiphtheritic.
Sclavo's Anti-anthrax

Papers by Guy's Men.

A. E. Boycott, M.D., Lecturer on Pathology at Guy's Hospital: Infective Methæmoglobinæmia.—*British Medical Journal*. Supplement. Otober 28th, 1911.

W. Arbuthnot Lane, M.S., F.R.C.S., Surgeon to Guy's Hospital, Senior Surgeon to the Hospital for Sick Children, Great Ormond Street: The Operative Treatment of Badly United Fractures.—*Lancet*, November 4th, 1911.

J. McC. McCarthy, M.D. Durham, M.R.C.S. Eng.: A Case of Tonsillar Calculus.—*British Medical Journal*, October 28th, 1911.

C. W. Ponder, M.D., D.P.H. Cantab.: The Prevention of Anthrax Infection due to Imported Hides and Skins. (The Seymour-Jones Formic Mercury Process).—*Lancet*, November 4th, 1911.

Wm. Sheen, M.S., F.R.C.S., Surgeon to Cardiff Infirmary, and Consulting Surgeon to the Seamen's Hospital, Cardiff, and two others: Two Cases of Sarcoma of the Thymus.—*Lancet*, November 4th, 1911.

E. I. Spriggs, M.D., F.R.C.P., Senior Assistant Surgeon St. George's Hospital: Lecture II. On the Feeding of Babies.—*Clinical Journal*, November 1st, 1911. And Two Lectures on the Treatment of Diabetes Mellitus. Delivered at St. George's Hospital.—*Lancet*, October 28th and November 4th, 1911.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—ED., G.H.G.]

Lectures on Instruments.

DEAR SIR,—In a recent lecture in Genito-Urinology, Mr. Thomson exhibited all the instruments in common use in the diagnosis and treatment of urethral stricture, and explained their value, to the great benefit of those students who were present. It is the common practice of Messrs. Targett and Bellingham-Smith to illustrate their lectures in a similar way, and Mr. Davies-Colley used to bring his classes on Practical Obstetrics to a satisfactory conclusion by a grand instrumental display. It is generally to be regretted that the other surgeon-specialists have never thought of following these excellent examples. Students are, I am sure, extremely thankful for, and considerably improved by, such demonstrations. I am, therefore, writing to ask you kindly to use your influence towards increasing their frequency and greater variety. In the process of revising the existing arrangements for clinical lectures generally, would it not be possible to include among their number two or three on the indications for, and the best way of using, surgical instruments, together with the mechanical principles concerned in their construction?—I am, sir, yours sincerely, A STUDENT.

The Research Defence Society and Anti-Vivisection Shops.

SIR,—We desire to make a special appeal for the purpose of undoing the harm which is done by anti-vivisection shops and processions. The exhibits in these shops are of a most misleading nature, and the truth as to anæsthetics is carefully concealed. No operation, more than the lancing of a vein just under the skin, is allowed to be done on any animal in this country unless the animal is under an anæsthetic throughout the whole of the operation.

It will be remembered that one of these shops, on the death of H.M. King Edward VII., distributed a leaflet suggesting that His Majesty's death was due to medical treatment.

We have, or course, received many complaints against these shops. We find that the police have no power to close them, and we can only place men outside them to give our leaflets to passers-by.

But this constant giving of literature is a heavy expense to our Society. We, therefore, appeal for special contributions toward this purpose. We make this appeal with confidence, for we are sure that the public recognizes the grave harm which is done by these shops, especially to children. All contributions should be sent to the Hon. Treasurer, Research Defence Society, 21, Ladbroke Square, London, W.

We may, perhaps, take this opportunity of mentioning that a letter has just been received from Sir Apolo Kagwa, K.C.M.G., the Prime Minister of Uganda. It is dated from Mengo, Uganda, September 26th. "I really think," he says, "that in a few years' time sleeping sickness will be extinct in Uganda, and people will become immune from the disease." If this happy result is obtained, it will, without doubt, be due to the work done by the Royal Society Commission, who gained their knowledge on the subject by experimentation on animals.—We remain, yours faithfully,

CROMER, President.
SYDNEY HOLLAND, Chairman of Committee.
F. M. SANDWITH, Hon. Treasurer.
STEPHEN PAGET, Hon. Secretary.

21, Ladbroke Square,
London, W.
November 1st, 1911.

The Hunterian Society.

DEAR SIR,—May I call the attention of Guy's men to the advantages offered by the Hunterian Society, which is one of the oldest of the Medical Societies in London, being founded in 1819.

Fortnightly meetings are held during the winter months at the London Institution, Finsbury Circus, which is of easy access from all parts by reason of its central position and proximity to the Moorgate Street and Liverpool Street Stations.

At the meetings papers are read, and cases and specimens are shown; in general, emphasis is laid on the practical and clinical aspects of the questions treated. The meetings and the annual dinner also constitute pleasant social gatherings.

Every year the Society awards a silver medal for the best essay by a General Practitioner, embodying the results of his own observations.

Each Session the Society holds clinical meetings at some of the Hospitals, and Fellows have an opportunity of seeing cases of exceptional interest. They also have the privilege of obtaining books from Lewis' Library.

The subscription is half a guinea, with an entrance fee of half a guinea.

I shall be pleased to furnish any further information — I am, Sir, yours very faithfully,

ALFRED C. JORDAN, M.D.,
Hon. Librarian and Junior Hon. Secretary.

11, Bentinck Street, W.

The Prospects of the Medical Profession.

SIR,—"Middle-Aged Guyite" seems to have been born under a very lucky star; not only has he been able to provide for old age from his very lucrative practice, but has also been able to start in life those for whose existence he was responsible. He then goes on to tell us that we have nothing to fear from "bonesetters" and "quacks" if only we know our work.

I am afraid he has never practised in a hunting county, for if he could be clever enough to persuade a hunting man who has had an accident (say to his arm) from going to a bonesetter, he would indeed be a man whom the world has not yet seen. If he had a hunting accident to treat and he applied any bonesetting knowledge, it is a thousand to one that he never sees that patient again. With regard to competition, has he never experienced the interference of the district nurse run by the Lady Bountiful? He must indeed be fortunate if he has never lost fees from midwifery, minor accidents, or illnesses through her ministrations! Perhaps it has never been his experience to suffer from the hands of certain town "specialists"—men who see your patients and prescribe a vaccine for some condition, and send them home with a syringe and a few phials of vaccine for *self-injection*. It has been my unhappy lot to see such cases, and in one case a condition suspiciously like an aphylaxis supervened.

Then, again, has he never met or heard of the "quack," who, after a fortnight's course of bacteriology, meets one of your patients socially, and notices that he or she is suffering from rheumatoid arthritis, and, in the course of a very "learned conversation," gets him or her into his clutches, and, after many attempts, isolates from the urine Friedlander's bacillus, makes a vaccine, and after many injections and much talk (the patient having suffered from many painful reactions), hands back to you a human wreck for whom you can do nothing; but perhaps I do not know my work.

I notice that "middle-aged-Guyite" says, "without conceit," that he knows something of Poor Law and Provident Dispensary Appointments. He must be gifted with "heavenly powers," if he has escaped collision with these quarrelsome and grasping bodies. If he considers sixpence and eightpence per visit proper and remunerative pay for attendance on paupers, or half a crown sufficient payment for vaccination, I fear he has lived in a different world from what the general run of practitioners do.

I know of some general practitioners who, through no fault of their own, have been quite unable to provide suitable education for their children; and in one case a most hard-working and capable general practitioner has been obliged to apprentice his sons to trade, and one son is now the village carpenter not many miles from his father's home. I think if "middle-aged Guyite" would enquire, he would find that such cases are by no means uncommon.

If "middle-aged Guyite" was not quite such an armoured-skinned optimist, he might, perhaps, see that the future of the profession is dark, and very dark; with the Insurance Bill passed, the outlook does not offer an alluring prospect for a man starting in life. All the lofty ideals of which we have heard so much recently in the GAZETTE, will get quickly dispelled when the stern realities of medical life are faced.

To be "happy, cheerful and contented" on a wage which the skilled artisan would sniff at, is beyond comprehension. The only hope for the profession is to take a lesson from the proletariat, and form a medical federation which could protect our interests; and I would have it endowed with strong disciplinary powers, so strong as to be able to remove from the register those "blacklegs" who refuse to conform to behaviour, such as should be expected from gentlemen.—I am, yours, etc.

"COTSWOLD."

Out-Patients and the Surgery.

SIR,—I cannot help feeling, after reading the GAZETTE, that you have expended much needless sympathy on the O.-P.'s attending this hospital. You draw attention to the fact that now in the Surgery (with the exception of acute cases), the patients only receive a card to attend O.-P. next day (or the same day if before noon), instead of, as heretofore, getting a green slip for medicine for *seven* days.

What you do *not* mention is that the medicine was seldom called for *till the following day*, and after having got it, the patient invariably expressed the desire to see the physician for the day as his card indicated. We rarely could persuade him to give the Surgery medicine a trial, and, of course, could not refuse to let him be seen a *second* time by a *different* man. Then, how often have I heard him told "to throw away the seven days' medicine and take the one just ordered"? Of course, when we could we destroyed the green slip, and prevented this waste of hospital money.

The Surgery was also used as a loophole to escape O.-P. hours, for who would turn up to time when he could get a green slip at any hour in the Surgery? Now, of course, they have to attend here for treatment and medicine, and the Surgery will eventually return to its proper use—a first-aid, not an O.-P. Department.

I have been struck with the small number of patients who seek admission after hours, now that the door is systematically guarded all day. They know unless they have a good reason or look ill they will not be admitted; so, their watches do not stop so suddenly as they used, the trams run better, and the Tower Bridge is evidently not so often up.

Another, and the strongest argument against your cry of the patients losing their work by spending days

in the hospital, is that since two more surgical days have been added to Out-Patients, the Saturday patients have taken advantage of them, and the former *busy afternoon has dwindled*, while the new medical day on Saturday cannot boast of more than a handful of patients. Surely, if the Borough was as concerned about losing its work and pay as you are, sir, they would turn up in shoals on their free afternoon, because, being in ill-health, it is to be presumed they are not out enjoying themselves.

With regard to the new Baby Out-Patients, if you inquire at the Children's Hospitals you will find that their O.-P. hours are morning or early afternoon, and that they *attend at these hours* as our new babies are doing, whose mothers seem pleased with the honour of being seen before the numbers of waiting adult patients. Furthermore, to encourage mothers to stroll up to the surgery at any time at night is putting a premium on women's work when they ought to be at home attending to their children. This, of course, touches a vast social question, but though we cannot eradicate an evil, surely we need not further it. The weak point to me in the new arrangements is the extra time the patients are kept waiting, and one hears much grumbling towards the end of the afternoon. It entirely depends when the babies are finished how early or late the adults are seen because there is only one O.-P.O. on the medical end now till 1.15. If two O.-P.O.'s came on at 10, one seeing adults, the other children first and then adults, I think the arrangements would be almost perfect. The present congestion of the hall calls for more forms, management, and nurses. The single O.-P.O. working in the morning is, of course, unable to select cases for the physician, as you suggest, as he seldom reaches his adults till the dressers have been down and written up their cases.—Yours truly,

J. B. M. PATERSON,
Sister O.P.

Change of Address.

H. Chapple, M.C., F.R.C.S., from 25, York Street, Portman Square, to 23, Southwark Bridge Road. Telephone, Hop. 3244.

H. B. Ross, L.D.S., from 68, Hamlet Court Road, Westcliff, to 92, Victoria Avenue, Southend. Telephone, 275.

John H. Jones, M.R.C.S., L.R.C.P., D.P.H., from Cocoa Tree Club, St. James's Street, S.W., to 126, Unthank Road, Norwich.

G. Burton-Brown, M.D., from Iver, Bucks, to The Beacon, Sidmouth, Devon.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Dental News.

THE first meeting of this session of the Dental Society was held in Class-room No. 2 on Friday, October 13th, when the new President, Mr. Payne, took the chair.

The Class-room proved far too small on this occasion for the accommodation of the members. All seats were early overcrowded, and late-comers had to content themselves with any available corner, and stand throughout the whole of the meeting.

We were glad to notice amongst the number present Messrs. Aubrey, Edgar and Hodgson.

After the reading of the minutes, the next business was the Presidential address, which appears elsewhere in this issue. This address was most enthusiastically received. All the members realize their debt of gratitude to the President for the way he consented to step into the breach caused by the resignation of Mr. Chapman, who has left us for newer fields.

Casual communications were presented by Messrs. Wain, Wade and R. D. Saner, the President giving briefly the pathology and ætiology of each.

Mr. Shore then read his paper entitled "Hospital v. Private Pupilage." This paper brought out a great deal of discussion. Amongst those who spoke to the paper were Messrs. Aubrey, Neft, Wade, Edwards, Campian and Wain.

Acting on the suggestion in the President's address regarding research work, it was decided at the next meeting to form a committee for the purpose of carrying out the idea. This is a move which should commend itself to all past and present members.

The meeting closed at 6 p.m.

From the Gazette's Special Pathologist.

W. E. G., RYDE.—The discharge on the dressing is scanty in amount and the cell elements are almost entirely disintegrated. A few Gram-positive micrococci are noted, and the inoculated media show cultures of the staphylococcus pyogenes aureus. There is not enough material for a satisfactory examination for tubercle bacilli to be made.

INTER-HOSPITAL GOLF.—The first round in the Inter-Hospital Golf Competition for the Cup presented by Dr. Hale White will be played between St. Thomas's and Guy's on Wednesday next, November 15th, at the Royal Wimbledon Links (private).

Intestinal Obstruction.

CLINICAL LECTURE BY MR. R. P. ROWLANDS.

GENTLEMEN,—Without operation complete intestinal obstruction nearly always leads to death. The exceptions are so few and delay is so dangerous that an operation is generally regarded as the only rational treatment. Unfortunately valuable time is too frequently wasted in arriving at a diagnosis; and too much faith is placed in purgatives. A single purgative, by failing to act and increasing symptoms, sometimes assists in the diagnosis. Repeated doses damage the intestine above the obstruction and lead to delay. Peristalsis of the upper part of the intestine is increased, with the result that inflammation and distension of the bowel just above the obstruction are exaggerated. The mechanical injury at the site of the obstruction is also increased, and the onset of paralytic distension and peritonitis is accelerated. Rectal injections do less harm, and a large enema carefully and slowly given sometimes relieves an obstruction of the colon. In such cases colostomy may be avoided with advantage, and a radical operation performed when the acute symptoms have abated. The mortality of operations for acute intestinal obstruction is still too high. About half the patients seen in hospital practice die. It is pitiable to see these patients die after an apparently satisfactory operation has been performed. Asepsis and the improvements of technic seem of little avail. What are the causes of failure? That delay is the main cause is shown by the brilliant success of early operation. Purgatives are responsible for much, for when they accumulate in the bowel they act as irritant poisons. Among other causes too prolonged anæsthesia and operation, and unnecessary manipulation of the intestine may be mentioned. Prolonged general anæsthesia seems to have a peculiarly depressing effect upon these patients. The prognosis varies inversely with the duration of the operation. The manipulation of the intestine loaded with toxins tends to disseminate the latter with disastrous results. Twitching of the face, delirium and collapse, with a quick, feeble pulse, indicates this toxæmia, which can be produced in a healthy animal by the intravenous injection of poisons separated from the contents of strangulated intestine. Their dissemination can be minimised by the judicious use of clamps for the intestine and mesentery before the damaged part is handled. Attempting too much is a frequent cause of death, and resection during acute obstruction is nearly always fatal. Inversion of a small damaged area or temporary drainage is often more successful. Temporary drainage need not have the terrors commonly believed to be associated with it, for a quite *small* fistula serves to relieve the distension, and this can be closed under local anæsthesia two or three days later, when the vomiting has ceased. An attempt to close a *larger* fistula later is a formidable operation, which rarely succeeds without resection. The injection of purgatives into the damaged bowel is a deplorable custom based upon wrong principles. When there is urgent need to empty damaged intestine, it is better to open it and to close the small opening either immediately or preferably a few days later. Irrigation of the distended intestine with the immediate closure of the two widely separated openings is on its trial. It necessarily means a good deal of delay and manipulation. It is better to operate before the bowel is so seriously damaged. Then it is only necessary to remove the cause of the obstruction, except in cases of stricture, for which a lateral anastomosis may be successfully carried out. Gangrenous bowel, apart from embolism or thrombosis of the mesenteric vessels, should become more and more uncommon. Our chief endeavour should be directed towards arriving at a correct diagnosis earlier, and then to impress upon everyone concerned that an immediate operation is imperative, and, lastly, to perfect our operations and after-treatment. To facilitate diagnosis, attention may be drawn to the most important symptoms and signs of intestinal obstruction.

SYMPTOMS AND SIGNS.

(*a.*) *Pain.*—The initial pain of acute intestinal obstruction is usually severe, especially about the umbilicus. When the obstruction is in the small intestine there is often great pain in the back. Later the abdominal pain is of a colicky nature, and it is often accompanied by visible peristalsis, and followed by vomiting.

(*b.*) *Collapse*—The patient remains somewhat collapsed throughout, his face being pale and often leaden and pinched. The temperature is subnormal in the early and important stages, but towards the end it may be raised from septic infection.

(*c.*) *Vomiting.*—The vomiting due to obstruction, especially of the small intestine, is persistent and intractable. It is only temporarily

relieved by starvation or even by washing out the stomach. The vomit gradually becomes brown and offensive, and later fæcal.

(*d.*) *Constipation.*—The constipation is absolute, both for fæces and flatus. This statement needs a certain amount of qualification. Large enemata may bring away a good deal of fæces from the bowel below the obstruction, especially if the obstruction is high up in the small intestine. Again, the bowels may act fairly well, or there may even be diarrhœa with Richter's variety of strangulated hernia, in which the bowel may not be completely obstructed.

(*e.*) *Peristalsis.*—This, when seen, is of great importance, but it may not be visible with very acute obstruction high up in the small intestine, especially if the abdominal wall is very thick. Very late in obstruction it may cease. Normal peristalsis may be seen through a very thin abdominal wall.

(*f.*) *Quickening pulse.*—Although at first the pulse is slow and weak, later it invariably becomes quick and feeble. A quickening pulse is of the gravest significance. It must not be forgotten that all the symptoms may be minimised by starvation or masked by the administration of sedatives, especially morphia. There is often a misleading lull due to natural exhaustion. Very soon, however, the symptoms return in an aggravated form, and rapidly lead to a fatal result.

(*g.*) *Thirst.*—The thirst that usually accompanies intestinal obstruction, especially of the small intestine, is very severe.

(*h.*) *Insomnia.*—The subject of intestinal obstruction hardly sleeps at all until the obstruction is relieved, unless morphia is given. The administration of morphia *for abdominal pain of uncertain origin* is to be most strongly condemned, for it masks nearly all the symptoms, and therefore delays diagnosis and treatment.

(*i.*) *Distension.*—Gradually the abdomen becomes more distended, yet supple, and moving on respiration.

Of all the symptoms complete constipation is the most important. As a rule, the patient has already taken a purgative before calling his doctor. It is not wise to give repeated purgatives, which, failing to act, increase vomiting and collapse, and considerably reduce the chances of recovery of the bowel after operation. One of the worst purgatives to repeat is calomel, which may become a powerful irritant poison. I have known the repeated administration of calomel, in small doses, lead to ulcerative colitis. Repeated large enemata are much safer, and they give all the information that we require. When the diagnosis is made, or even strongly suspected, the patient's only chance lies in an operation performed at the earliest possible moment. Nowhere is delay more disastrous.

Diagnosis.—We have first to diagnose intestinal obstruction from other diseases which simulate it, and then, if time permits, we may attempt to ascertain the variety and situation of the obstruction.

1. Diagnosis of Intestinal Obstruction from other Diseases.

The essential thing in diagnosis is to decide quickly, yet carefully, whether the symptoms are such as to make an early exploration necessary or not. A careful study of the history, signs, and symptoms will generally lead to a correct conclusion, but sometimes there are many difficulties. All inflammatory diseases of the abdomen are distinguished by fever, although the temperature may be subnormal soon after the perforation of a viscus, or the rupture of an abscess into the peritoneum. Rigidity and tenderness of the abdomen, either local or diffuse are important indications of local or diffuse peritonitis. Acute hæmorrhagic pancreatitis is often mistaken for intestinal obstruction. The patient, who is often stout and past middle age, is groaning with pain and is of a leaden colour. Pain and tenderness are said to have started, and they often remain worse, in the epigastrium. Sometimes there is a distinct fulness there. Fatty stools result from repeated large enemata, showing that true intestinal obstruction is not present. Moreover, the temperature is often raised, and the patient cyanosed. Constipation is rarely complete. Ruptured tubal gestation is characterised by the increasing pallor, the more rapid quickening of the pulse rate, and the peculiar doughiness of the distending abdomen. The history and examination of the uterus and breasts are often valuable. The best treatment for these conditions is immediate operation, therefore difficulty in deciding between them and intestinal obstruction is no excuse for delaying exploration. Acute gastritis may sometimes give rise to difficulties, but the vomit is not intestinal and constipation is not complete. The general symptoms are not so severe as those of intestinal obstruction. The various colics may give rise to difficulties, but with them, although the temperature is often sub-

normal, constipation is not complete, nor is the vomit brown and offensive. A purgative or an enema may act and flatus is often passed. With biliary colic there may be jaundice, or a history of previous attacks. Usually biliary colic is due to the impaction of a stone in the cystic duct. Then there are tenderness, rigidity, and often a swelling in the right hypochondrium, and a raised temperature. With renal colic the pain is limited to one flank along the course of the ureter; there are blood corpuscles in the urine, with frequency of micturition, and cystoscopy, after the intramuscular injection of indigo-carmine, shows no coloured urine issuing from one ureter. The blue line of lead poisoning may suggest the cause of colic. It must not be forgotten, however, that the presence of a lead line does not exclude more serious disease. I remember two cases in which the discovery of a lead line led to disastrous delay in opening the abdomen. In one case a perforated duodenal ulcer was temporarily overlooked, and, in the other, obstruction by bands. In both of these the delayed operation failed to save life. Lead colic is rarely severe enough to keep the patient awake all night, nor is it associated with persistent vomiting. Moreover, repeated enemata are effectual.

When face to face with the possibility of intestinal obstruction it is most important to come to a decision without delay. The most important thing to do is to try the effect of large enemata. If these fail to do more than bring away a few scybala from the colon, intestinal obstruction may be safely diagnosed. Another vital thing is to examine all the vomit. Directly this becomes offensive or brown it is clear that intestinal obstruction is present. Washing out the stomach does not prevent this vomiting, for the contents of the obstructed intestine go on regurgitating into the stomach. Sometimes the vomiting ceases when all food is withheld. Therefore it is often wise to try the effect of food in order to accelerate the diagnosis. It also abates as the colic becomes less frequent and less powerful. Therefore when the stomach is getting distended with brown material the patient is only able to bring up mouthfuls at a time. On passing the stomach tube then one has been astounded to find several pints in the stomach. Another very important thing is to watch the patient carefully when the abdomen is exposed. Within half an hour colic comes on and the patient becomes paler, his face drawn and his abdomen rigid, and then peristalsis can be seen, and this is usually followed by vomiting. It cannot be too strongly urged that a weak and slow pulse and subnormal temperature are strongly suggestive of intestinal obstruction, especially when the other colics can be excluded. When the pulse quickens the patient is rapidly getting worse.

2. Diagnosis of the Variety of Intestinal Obstruction.

I shall begin with a classification which I find to be useful, for want of thought is a more common source of error than want of knowledge. How often do we have to admit that "we never thought of that"? In many cases, if time permits, it is possible to arrive at a fairly accurate diagnosis of the nature of the obstruction before the abdomen is opened. This is sometimes of great value, for it enables us to consider the various steps of the operation and to anticipate some of the difficulties that we may encounter. In this way the duration of the operation may be diminished, and it is certain that in this condition quickness is more important than anything except judicious and careful work. Roughly the causes of obstruction may be divided into:—

1. Pressure on the bowel from outside.
2. Disease of the wall of the bowel.
3. Foreign bodies in the bowel.

This rough classification may be amplified, as follows:—

1. *Pressure on the bowel.*

(*a.*) External hernia.

(*b.*) Bands and adhesions following appendicitis, tuberculous peritonitis, pelvic peritonitis (especially due to tubal disease), sigmoiditis in which the appendices epiploicæ may form bands, diverticulitis, Meckel's, gastric or duodenal perforation, and operation.

(*c.*) Internal hernia through a foramen in the omentum, mesentery, or diaphragm, into the duodenal or retro-cæcal fossæ or into the foramen of Winslow.

(*d.*) Contraction of the mesentery from tuberculous or malignant disease.

2. *Disease of the wall of the bowel.*

(*a.*) Intussusception.

(*b.*) Volvulus.

(*c.*) Kink.

(*d.*) Stricture, malignant and simple, tuberculous, after operation, after strangulated hernia.

(*e.*) Paralysis of the bowel, especially after peritonitis; or due to thrombosis or embolism of the mesenteric vessels.

3. *Foreign bodies inside the bowel.*
(*a.*) Gall-stones.
(*b.*) Enteroliths.
(*c.*) Actual foreign bodies, mostly in lunatics.

As a general rule obstructions of the small intestine are acute, whereas those of the large are chronic; but there are important exceptions. For instance, strictures of the small intestine (which are rarely malignant) give rise to chronic terminating in acute obstruction. Again, volvulus of the sigmoid colon gives rise to very acute symptoms, and intussusception, which mostly affects the ileo-cæcal region, nearly always gives rise to acute obstruction. A strangulated hernia is placed first on the list because it is often overlooked. In a recent case false modesty in the examination of a nun led to the overlooking of a small strangulated femoral hernia, which was only discovered when the abdomen had been opened. It should be the rule in every case of suspected intestinal obstruction for all the hernial orifices to be systematically examined. This is all the more important because the patient may have a hernia without any knowledge of it, and the initial pain of strangulated hernia is abdominal and not localised at the hernial orifice. Femoral hernia is the most common to be overlooked because it is often small. Obturator hernia is fortunately very rare, but when it does occur it is usually overlooked. A slight fulness below the spine of the pubes, associated with pain along the inner side of the thigh, should always lead to a careful examination of the inner aspect of the obturator canal through the rectum or vagina. It may be superfluous to say that a careful rectal examination is indicated in all cases of intestinal obstruction. In this way unsuspected carcinoma, gall-stone, or enterolith may be discovered. In one case I was able to avoid an operation for intestinal obstruction by examining the rectum of a little boy, and discovering an enterolith just within reach of the finger when the patient was sitting up and straining. His abdomen was enormously distended. The enterolith was broken up under an anæsthetic, and the patient was discharged well three days later.

Bands nearly always choose the small intestine, especially the lower end of the ileum. Acute obstruction is, therefore, very likely to be due to a band, especially if distension of the colon is not indicated by bulging of the flanks, and if the distension is mainly in the middle of the abdomen, where several visible coils of small intestine with peristalsis may be seen. A history of peritonitis, and especially of appendicitis, strongly suggests a band. When the distension is slight and only one or two coils are seen, and when the vomiting is very frequent and only bilious instead of brown, the obstruction is probably in the upper part of the small intestine. A very scanty urine also suggests the same.

Case 1. *Acute Intestinal Obstruction by a Band: Appendix adherent to Caseous Mesenteric Gland.*—Boy, aged 6 years. The patient was seized with very violent pain in the abdomen on the morning of April 10th, 1911. His father gave him two large doses of castor oil, which failed to have the desired effect. He was admitted into Guy's Hospital; and had a subnormal temperature, and was blue, cold, and pulseless. His abdomen was considerably distended, but flaccid. It was full in the flanks, and there was a palpable swelling in the right iliac region. On admission, at 8 a.m. on the 11th, he was too bad for operation, and was therefore infused into the axillæ.

Operation.—The abdomen was opened at 9.30 a.m., the patient having been given ether. The lower part of the right rectus was displaced inwards. The peritoneum seemed to be purplish and clearly contained blood. It was opened, and a large amount of sanious fluid escaped, clearly showing that the condition was one of intestinal obstruction and not appendicitis. Dark purplish, but not gangrenous, coils of small intestine were at once seen. Several coils were withdrawn, and a band was seen, consisting of the appendix adherent to a caseous mesenteric gland. This was astride the lower end of the ileum close to the cæcum and completely obstructed it. The adhesion to the tip of the appendix was divided and the empty cæcum drawn away from its former position, which was *unusually high. The abdomen was then closed with* through and through salmon-gut sutures. The operation lasted seven minutes (the patient was only in the theatre ten minutes). He was not much worse at the end of the operation, but he was hurried back to bed, and the infusion which was carried on throughout the operation was continued. Pituitary extract was injected in 5 m. doses.

The patient gradually rallied and did very well for several days, playing freely with his toys on the second day. His abdomen was distended, however, and full of fluid. His bowels acted naturally. A week after the operation he became very ill and blue again, and appeared to be dying, but he soon rallied, and made a complete recovery.

Case 2. *Acute Intestinal Obstruction by Appendicular Band.*—A young lady, aged 14 years. There was a history of an attack of severe abdominal pain about three years earlier, probably appendicitis. Of late the patient had been getting gradually more constipated and having to take a great deal of opening medicine. On the afternoon of October 6th, 1910, she had been climbing trees and was very active generally. That afternoon she took some purgative powders which did not act as they usually did the next morning. Towards lunch time on the 7th she began to have very severe abdominal pain and vomiting. Since that time until 2 o'clock on the afternoon of the 9th she had very severe pain and persistent vomiting. The pain was of a colicky nature, coming and going. The vomit was never fæcal, but mostly

bilious. She took very little food, only liquids. She slept hardly at all, only about an hour one night in spite of several doses of opium. She was delirious during the nights of the 7th and 8th.

Another medical man was asked to see her in consultation on the afternoon of the 9th, and saw her about 4 o'clock. Then she was clearly very ill, with a pulse of 120 and temperature of 99°. It had been 100° on the previous day. The abdomen was getting distended and very tender, especially towards the right iliac region. The pain had commenced near the umbilicus and travelled downwards to the right. On rectal examination there was a vague tender swelling to be felt on the right side. Several of the last specimens of vomit had contained streaks of blood, but the last of all was like coffee grounds. It was thought that she probably had appendicitis, and some hardness was felt just above the right Poupart ligament. At first her doctor did not think that she had appendicitis, but only gastritis. However, it was clear that the abdomen should be explored, and to this the parents consented. She was moved into a Nursing Home on the evening of the 9th, and I saw her at 10 o'clock. She had then just reached the Nursing Home, and her pulse was 176 and her temperature 99°. She looked very ill. The abdomen was greatly distended and very tender in the lower part.

Operation.—The abdomen was opened by displacing inwards the lower part of the right rectus, and a good deal of sanious fluid at once escaped. Greatly distended and blue coils of small intestine were seen, so that it was evident that the condition could not be due to appendicitis. The appendix was felt, and brought into the wound and shown to be comparatively healthy, although kinked from old adhesions. A hand was passed into the pelvis, which was normal. The obstruction could not be found until some coils of small intestines were withdrawn, and then a filmy band was discovered running from the outer side of the cæcum to the mesentery of the ilium, crossing in its course the ileum quite near its lower end, and completely obstructing it. The band was divided, the constriction was examined and some of the intestinal contents gently squeezed through it, thus dilating it. The intestine was in a fair condition. It was, therefore, decided not to drain it. The fluid had been absorbed by means of gauze passed towards the pelvis. The abdomen was completely closed. The operation took a little under half an hour.

The patient was infused directly she was put back to bed, 2½ pints of saline being run into the axillæ, and a little later 1 pint was run into the rectum. The patient was extremely restless, and had a very feeble pulse. She was light-headed. Some Ernutin, x. minims, was injected, and later 1/6th grain of morphia. The pulse then improved, and the patient slept six hours, with occasional starts. The bowels were opened twice before 8 a.m. on the next morning. The temperature at 9 a.m. was 101°. The patient was a great deal better and rational. About 10 o'clock, however, the pulse had again become rapid and very weak, and the patient was getting more restless. She complained of a little pain in the right thigh which was slightly swollen, possibly due to thrombosis of the femoral vein. The bowels had been opened again twice, the motions being liquid and copious, but containing no blood. At 6 p.m. the temperature was 102°. She did not absorb all the axillary infusion. During the day she became more restless and feeble, and she died late on the 10th.

A hernia in the left duodenal fossa is sometimes indicated by a globular, tympanitic and supple swelling above and to the left of the navel. A similar swelling below and to the right of the navel may indicate the much rarer right duodenal hernia, or the retro-cæcal variety of internal hernia. Contraction of the mesentery from tuberculous or malignant disease usually gives rise to chronic obstruction, which may terminate acutely. In the one case there is a history of prolonged diarrhœa or of tuberculous peritonitis, and in the other there are some indications of a primary growth as a rule.

Intussusception.—The acute intussusception of infants is characterised by the passage of blood and slime without fæcal matter. In most cases a sausage-shaped swelling is felt either in the abdomen or rectum, but it cannot be too strongly urged that the absence of this swelling should not delay the diagnosis when vomiting, colic, and the characteristic signs already mentioned are present. With a subacute intussusception of older patients some fæces may be passed, with the result that a diagnosis of colitis is then made. A careful observation of the abdomen during the attacks of colic generally reveals a characteristic sausage-shaped swelling. In these cases it is better to explore the abdomen than to wait until the obstruction is complete and the intestine is gangrenous. An intussuscepted growth of the sigmoid may be often felt per anum.

Volvulus.—A volvulus is only common in the sigmoid and cæcum. It is nearly always indicated by the early onset of an extreme amount of tympanitic distension, and it usually occurs in the subjects of chronic constipation. The following is an interesting example :—

Case 3. *Volvulus of the Sigmoid Colon.*—A frail old lady, aged 81 years, a life-long sufferer from chronic constipation, had during the last ten years several attacks of acute obstruction. These attacks generally passed off in a day or two, leaving the patient quite well again. About seven years ago the rectum prolapsed to a great extent and could not be reduced. The patient was in a very grave condition when her doctor opened the abdomen and drew the bowel back and fixed it to the abdominal wall with a few sutures. Since then the patient has had the attacks of abdominal pain as before, and about three years ago she had a very severe one, during which a ventral hernia at the site of the operation was very tight. It was thought that an operation would be necessary, but fortunately the hernia was reduced, and the symptoms abated. For the last two years

the patient has been a good deal better and able to enjoy life. I was called to see her on the afternoon of July 14th, 1910.

History of Present Attack.—Early in the afternoon of July 11th she was seized with severe abdominal pain a good deal worse than her usual attacks. The pain was difficult to locate, but it was mostly about the navel. The bowels had not been opened since in spite of numerous enemata and a variety of purges. She had not been sick once, and had taken very little food. The pain had been coming on in spasms and had been so severe that the patient could not sleep on the nights of the 11th, 12th, and 13th. The abdomen had become more and more distended. A long rectal tube, which she had been in the habit of passing did not relieve her. Another doctor was called in in consultation. It was then decided to have a further consultation with a view to operation. When I saw her three days after the onset of the attack, the pulse was fairly good, 108 and regular, although it had intermitted earlier in the day, and some champagne had been given. The temperature was normal. The breathing was wheezy and 36 per minute, due to sub-acute bronchitis. The abdomen was enormously distended and tender in the lower part, especially towards the left. A very large coil could be seen extending obliquely across the lower part on the left side from the region of the hernia under the left rectus. At this spot there was a hard swelling. There was no dulness in the flanks and no tenderness in the upper part of the abdomen. Nothing abnormal could be felt from the rectum. An operation was advised.

Operation.—This was performed at 7 p.m. under chloroform. A semi-circular incision was made across the lower part of the abdomen towards the left side. The hernial sac was opened and showed omentum only. This was not strangulated. There was free serous fluid in the abdominal cavity. The opening was enlarged downwards through the left rectus, and a hugely distended coil of large intestine was discovered. This proved to be the sigmoid. On passing the hand downwards to the pelvis in search of a possible growth, the shortened ridges of a twisted meso-colon could be felt. The distended coil extended upwards and to the left, touching the liver and the right flank, and also occupying the right iliac fossa. A vain attempt was made to undo the twist without bringing the bowel out. A dense, short adhesion was found between the loop and the left edge of the hernial orifice. This was tied and divided. While bringing the bowel out, the distension of the projecting part increased so that the peritoneum began to crack just like the inner tube of a bicycle. To prevent extensive rupture, a needle was at once thrust through a longitudinal band, with the result that a large amount of gas, but no fæces, escaped. The loop was then empty except for a few scybala. The small puncture was closed by a purse-string, reinforced by means of a Lembert suture. The bowel was untwisted, washed and replaced in the abdomen, care being taken to push the proximal limb of the loop as high up as possible. What had been taken to be the upper part of the loop proved to be the lower, when the bowel was traced down into the rectum, and the perforation which had been made near the adhesion was found to be near the upper part of the loop. The length of the twisted loop was about three feet, and its circumference was about fifteen inches. It consisted only of the sigmoid and descending colon, the transverse colon and the cæcum being almost natural, and the small intestine was very little, if at all, distended. The meso-sigmoid was of great length and infiltrated with blood. One and a half rotations of it had occurred. The muscular wall of the bowel was greatly hypertrophied, clearly showing that the condition had existed in an incomplete condition for a very long time. The peritoneal coat was inflamed and sticky, but no pus could be seen. The patient was so ill that there was no time to attempt to fix the bowel to the back wall of the abdomen. All that could be done was to place it in as good a position as possible, and then to bandage the abdomen very tightly. The parietal wound was rapidly closed. The operation lasted half an hour.

Immediately after the operation a saline enema was given (10 ounces), and this was repeated every eight hours, alternating with a nutrient enema every eight hours. The patient did not sleep very much during the night, but she was quite free of pain, and was gradually brought more and more into the semi-sitting position. The bowels were opened a little in the early morning, and a great deal of gas was passed. The temperature and pulse were normal in the morning. The patient got up a fortnight after the operation, and was in the garden in two and a half weeks, and walking down stairs in three weeks. She made a good recovery, and is hale and hearty now, nearly eighteen months after her operation.

Kinks.—Apart from adhesions or contraction, a kink is a rare cause of intestinal obstruction. It not uncommonly results from adhesions about the hepatic flexure, and it sometimes occurs above contraction or tumours of the mesentery, and it follows adhesions after operation, and especially during peritonitis, where it is mistakenly called paralytic distension of the bowel, and therefore remains unrevealed until death.

Gall-Stones.—A gall-stone usually gets impacted in the lower ileum, where the bowel is narrowest. It is curious how rarely it is diagnosed. As a rule the diagnosis of obstruction is delayed until a successful issue is impossible. These facts may be explained by the callousness which has been bred by repeated attacks of pain due to gall-stones. As a rule there is a history of one of these attacks within about ten days of the onset of intestinal obstruction. With this attack there are signs of localised peritonitis in the right hypochondrium, indicating the formation of a fistula between the gall-bladder and the duodenum.

Malignant Stricture of the large intestine is indicated by the characteristic history of chronic obstruction and wasting, anæmia, indigestion, constipation alternating with diarrhœa, and the passage of blood and mucus when the ulcerating growth is low down. There is often a history of several milder attacks of acute obstruction.

Guy's Hospital Dental Society.

PRESIDENTIAL ADDRESS BY Mr. J. LEWIN PAYNE.

Gentlemen,—My first duty in addressing you this afternoon is to express my thanks to you for the honour you have conferred upon me in asking me once again to become the President of this Society. It would be a poor return for so gratifying a compliment to weary you with a long speech, but custom requires that I should say omething brief but definite, at this, the first meeting of the session, about the work of our Society.

At the outset, I wish to voice the regret which I am sure we all feel that Mr. Harold Chapman has felt compelled to resign the presidency of this Society, in consequence of his appointment to the staff of the London Hospital. There is not one amongst us that does not wish him all prosperity in his new sphere of work, yet at the same time we must confess we are very sorry he will be unable to occupy the chair at these meetings.

Amongst those signs which augur well for the future of the dental profession, there are none perhaps more hopeful than those which exhibit the continued activity and prosperity of the various Dental Students' Societies.

The papers which have been read, for instance, in recent years before this Society show an earnestness of purpose and a depth of real scientific interest that will, I believe, compare favourably with the record of any similar societies in other professions. We, for our part, must not lose sight of the fact that a Students' Society performs a very important duty in the work of dental education. It is one of those agencies which consolidates and popularises the common and accepted store of knowledge, and it affords great possibilities for self-education. Lectures and classes, text-books and papers, may in time provide a student with all that is necessary for his scientific sustenance. Our Students' Society goes further. It not only gives a man to eat; it helps him to digest. Thus, in order to bring before us any communications, members must read, and not only read, but they must think over what they have read. In this manner a complete process of digestion and assimilation is bound to take place within the brain.

Personally, I know of no method that leads more easily to permanent retention and accuracy of knowledge than the formulation of fact and theory and criticism which discussion before a society like this necessitates. And if such be the advantage derived from simple discussion, how great must be the benefit obtained from the preparation of a paper on a chosen subject! Furthermore, Students' Societies tend to counteract the evil of unfruitful cramming, and to lift their members to a wider culture and to a power of more thoughtful criticism. At the same time they afford an excellent incentive to all good workers.

As a matter of fact, it will be found that the men who to-day command the confidence and respect of the dental world are those men who have worked, and worked hard. Sensational bids for cleverness may be attractive to some natures, but if behind them there exists any lack of balance, of self-respect, or of principle, all such notoriety is likely to be short-lived. The only enduring practice is that which has been built upon a bed rock at the hospital and a good name at home.

One of the chief and most enduring glories of the medical and dental professions is that the standard of success is not measured by the amount of money earned, but by the amount of good done to our fellow-men and by the quantity of new truths added to the sum of human knowledge. It is, therefore, the duty of the student to devote all his energy and will-power to mastering the details of his profession, not only, nor even chiefly, for the purpose of making money, but in order that he may be of service to mankind.

By rubbing shoulders with one another, by mixing freely and conferring with other men in the affairs of life, our eccentricities of character and angularities of disposition are inevitably rounded off. By these means we grow to work more harmoniously together, to make the best of those qualities which we possess, and to give our most useful service to our fellow men. So it has been proved by experience in the scientific world. It is, in a word, essential for us to compare our opinions with the views of others and to submit our beliefs unreservedly to the test of discussion if they are to prove of real value. Indeed, I would go beyond this, and assert that the higher a man's intellectual attainments reach, the more necessary does he find it to associate and confer with those whose attainments may approximate to, or surpass, his own.

This Society has now been in existence a little more than seventeen years, and I venture to affirm that it has helped materially towards the attainment of these ideals, and has already achieved more than its originators ever anticipated. At the same time, whilst we may be quite satisfied with what has been accomplished in the past, we must not imagine that we are doing all that we can, or even ought to do, on its behalf. Those things which really concern us as members most, belong to the present and the future, and if this Society is to continue to be the living and effective force which we Guy's men all desire, we must seek for it some still more important enterprise.

A few years ago, at the annual dinner of the Dental Society, I ventured to make a suggestion that the members of this Society should undertake some definite work of scientific research that would help forward our knowledge of the art and practice of dental surgery. I pointed out that committees were at work in other quarters for a similar purpose, and suggested that a small students' committee (with or without the help of a member of the staff) should be formed each year for

the investigation of some one particular subject, to give such report as it is able to communicate before the Guy's Dental Society at the close of each year.

That suggestion I repeat to-day, and would warmly commend it to you during the present session. The type of committee I have in mind would be a committee of six, two members to be chosen from first year's students, two from second year's students, with a chairman and secretary. I advise that at first it should not attempt too great a task, for if it should find itself only able to establish one new fact, even though it be a fact of small significance, the committee will not have been formed in vain. In a hospital such as ours, with an excellent library, a large museum, and where clinical material abounds, it should not be difficult to obtain information upon many dental problems that at present remain unsolved. For example, such questions as these present themselves:—

Does the injection of local anæsthetics for the conservative treatment of teeth lead to any permanent injury of the tissues?

What anatomical characteristics distinguish the first and second premolars in man?

Can true Pyorrhœa Alveolaris be cured?

Does the vaccine method of treating Pyorrhœa Alveolaris really assist in palliating or curing the disease?

Suggestions of a similar kind could be multiplied indefinitely.

This Society has, as I have already pointed out, done much good work by helping to raise our standard of dental education, by promoting the social interests of its members, and by bringing the Medical and Dental Schools of the Hospital into closer relationship, but I, for my part, hope that during this session it will go a step beyond this, and will seek to establish some definite work of research that may redound to the credit of the Hospital and to the reputation of the Dental Society, to which we are all so proud to belong.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

A Pocket Atlas of the Fundus Oculi. By Johnson. (Adlard & Son.) Price 10s. 6d.

This small book, aptly called a "Pocket Atlas," is essentially practical in its aim. The text is clearly written, and contains no unnecessary detail or debatable theory; at the same time, no important point has been omitted.

The first chapter deals at some length with the varieties and uses of the ophthalmoscope (including its uses on the lower animals). The various errors of refraction are well illustrated and their treatment practically defined.

The following chapters give short accounts of the commoner internal diseases of the eye, including their diagnosis and treatment.

An appendix is added, containing a short description of the Wassermann serum reaction, the mode of injection of 606, also the determination of the opsonic index.

The drawings are taken from life by Mr. A. W. Head, whose name is sufficient testimony for their excellence. A small detachable note and drawing book, with pencil, completes the Atlas.

The author aims at a practical work, and in this he well succeeds. We recommend the Atlas to all who wish to become proficient in the recognition of the normal and diseased Fundus Oculi.

The New Physiology in Surgical and General Practice. By A. Rendle Short, M.D., F.R.C.S. Eng. (John Wright & Sons, Ltd., Bristol.) Price 4s. 6d.

The object of this book, as the title suggests, is to summarize the recent advances in Physiology as far as they are of practical value to the surgeon and general practitioner.

There are many similar works designed to aid the consulting physician, but this is the first that we have come across written for the surgeon and general practitioner.

The object is laudable enough, and in so far as the limits of the book allow—it is a small book of some two hundred pages—is well carried out. We would criticize it on the ground that the style tends to be too "popular"—a style not altogether appropriate in a book dealing with a scientific subject.

The book has its good points, however, and we particularly liked the treatment of the vexed subject of the value or reverse of nutrient enemata, and of such drugs as belladonna and opium as external local anæsthetics.

Manual of Physiology. By H. Willoughby Lyle, M.D., F.R.C.S. Eng. (Henry Frowde, Hodder and Stoughton.) Price 15s.

In the preface to this book the author states that it was written "in compliance with a suggestion that the student of physiology may have a book of convenient size, and at the same time sufficiently comprehensive."

He is a sanguine man who hopes to fulfil those two conditions in a work on physiology. And this is the most obvious criticism of the work—it has achieved the desired convenience in size, but at a sacrifice of a certain amount of detail which we consider indispensable in a work on physiology.

Physiology differs from its sister science Anatomy in that its facts need proof and can be seen most clearly by the mental rather than the physical eye.

The only way of acquiring a living memory of physiological fact is along the difficult and sometimes tedious path of argument, and we cannot help feeling that the author, in aiming at conciseness, has made too many short cuts.

Apart from this general criticism, there is much to praise in the book. It is clearly written, and if somewhat didactic, this is no great fault in a book for junior students.

The book is well sub-divided into chapters and sections, but we think it a drawback that there are no references to original papers in the text. The book should be very useful to those going up for the ordinary examinations in physiology, and we can recommend it to those students who desire a book dealing chiefly with the facts and not the theories of physiology.

A Synopsis of Surgery. By Hey Groves. (John Wright & Sons, Ld.) 9s. 6d.

The necessity for books of this type is an unfortunate concomitant of the modern examination, but since such books *are* necessary, the above volume represents them at their best. This, the third edition, has been brought thoroughly up to date, and should serve as a very useful means of reviewing surgery, since the information that it contains is concise and remarkably free from the errors so common in most books of this nature.

The House Surgeon's Vade-Mecum. By Russell Howard. (Arnold.)

This is one of the best books of its kind that we have read. All points likely to need the attention of the house-surgeon or dresser are treated in a thoroughly practical way, and although we should have welcomed a little more detail in the after treatment of abdominal cases, yet what there is is of very great value. We can confidently recommend this book to all holding or about to hold hospital house appointments, and feel sure that they will find it not only instructive, but also a great practical help.

The Differential Diagnosis of Renal Enlargements.

By HERBERT FRENCH, M.D.

(*Continued from page 470.*)

Hydronephrosis.

The tumour may be small and give rise to neither symptoms nor physical signs. When large it may be mistaken for an ovarian tumour, and when enormous may fill the abdomen and be difficult to distinguish from ascites. The tumour is caused by a dilatation of the pelvis and calyces with non-purulent fluid, the result of intermittent obstruction of the urinary passages below the pelvis of the kidney. There is often much atrophy of the kidney substance; in fact, in some cases a mere shell of renal tissue remains. The diagnosis from ovarian tumour has already been considered. The occurrence of an enormous hydronephrosis filling the abdomen is of an extremely rare occurrence, and may be mistaken for ascites.

1. In hydronephrosis the tumour may have been noticed to have definitely commenced on one side of the abdomen. In ascites the distension is general and not more on one side than the other.

2. In hydronephrosis a close inspection of the abdomen would probably show that it was more prominent on the side from which the hydronephrosis originated. In ascites the distension is usually uniform.

3. In hydronephrosis the opposite loin may be resonant to percussion and the front of the abdomen dull, whereas in ascites both loins are dull and the front of the abdomen may be resonant.

4. In some cases it may be impossible to distinguish without an exploration and an analysis of the fluid thus obtained.

In *hydronephrosis* the fluid is usually clear, pale yellow and watery; occasionally it may be slightly turbid. The specific gravity varies from 1006—1020. The reaction is acid or neutral. It usually contains urea, uric acid, traces of albumen, and more sodium chloride than is generally found in normal urine. In very old cysts there may be no uric acids nor urea. A microscopical examination may show the presence of some renal epithelium.

In *ascites* the fluid may vary according to the nature of its origin.

If due to *transudation* the fluid is clear and usually pale yellow. It is alkaline. The specific gravity is 1012 or under. It does not spontaneously coagulate on standing. It contains a small amount of solid, from 1·5 to 2 per cent. It is free of peptone, but contains serum albumen. Microscopically it is found to contain very few cell elements. Transudations may be also hæmorrhagic or chylous.

If due to *exudation* the fluid is clear or slightly turbid and yellowish or slightly greenish in appearance. It is alkaline. The specific gravity is usually over 1018. It may clot spontaneously on standing, sometimes soon after withdrawal; usually within twenty-four hours. Chemical examination shows the presence of serum albumen, serum globulin, and traces of sugar and uric acid. Microscopically it contains numerous cell elements consisting of red and white blood corpuscles and endothelial cells. Exudations may also be hæmorrhagic, sero-purulent, purulent, or chylous. Urea may be found in ascitic fluid in Bright's disease.

The most characteristic and diagnostic sign of hydronephrosis, and one that is almost conclusive, is the subsidence or disappearance of the tumour simultaneously with a temporary marked increase in the

output of urine. It must not be relied on, however, for it does not always occur. If there is a history or evidence of a cause of obstruction in the ureter, bladder, or urethra, the tumour is most likely to be a hydro- or pyonephrosis.

An X-ray examination may help to clear up a doubtful diagnosis, for if a calculus is found in the ureter the tumour is probably a hydronephrosis. Particular attention must be paid to the position of the opaque body to the X-rays, for one has seen a calcareous mesenteric gland mistaken for a renal calculus.

A blood examination would help to distinguish hydronephrosis from pyonephrosis or perinephric abscess, for in the latter conditions there would be a marked polymorphonuclear leucocytosis.

Rigor, pyrexia, and pyuria would point to pyonephrosis and not to hydronephrosis.

A careful examination of the urine may help to distinguish hydatid of the kidney from hydronephrosis, for in the former condition blood, shreds of membrane, scolices, and hooklets may often be detected.

The following is an illustrative case of *hydronephrosis: calculus obstructing the right ureter, passage of the calculus into the bladder, disappearance of the tumour, lithotrity, cure.*—John M., aged 29, was admitted on June 17th for an abdominal tumour. Five weeks before admission he had a severe attack of stabbing pain in his right loin, and since then he had had several similar attacks. He had not been jaundiced, nor had he noticed anything wrong with his urine. On admission a large tumour was found occupying the upper part of the right side of his abdomen; the mass appeared to be connected with the liver. It was explored with a needle, and appeared to be firm and solid, no fluid being withdrawn. A diagnosis of carcinoma of the gall-bladder was made, and he was transferred to a medical ward. On June 23rd some blood was found in the urine. On July 8th he had a severe attack of pain in the right loin, so severe that he fainted. The quantity of urine passed this day was 100 oz., the previous largest amount in twenty-four hours being 52 oz., and the smallest 20 oz. On the following day the tumour was noticed to be much smaller. A diagnosis of hydronephrosis was made, and the man went out on July 22nd feeling quite well. On August 21st he returned complaining of pain at the end of his penis and of occasional sudden stoppages of the flow of urine during the act of micturition. His bladder was sounded, and a calculus was found and crushed. A few days later he went out feeling quite well, no tumour being palpable in his right loin.

Tuberculous Kidney.

The enlargement of the kidney in this disease may be considerable; it is brought about in two ways. If the pelvic mucous membrane is the part which is primarily attacked, some obstruction of the ureter is likely to follow, and pyonephrosis is the result. When, however, the disease begins in the renal tissue, large areas of caseation are produced, and a section shows that the organ has been converted into a mass of vomicæ and caseous abscesses. An important characteristic of tuberculous disease of the kidney is the frequency with which other parts of the genito-urinary organs are affected at the same time, and before making a diagnosis it is of the greatest importance to examine the bladder, prostate, testicles, epididymes, and vesiculæ seminales for signs of tuberculous disease. It occurs rather more frequently in men than in women. The chief symptoms are dull heavy pain in the loins, the presence of a tender renal tumour, polyuria at first with attacks of hæmaturia followed by pyuria, and irregular temperature, high in the evening, with morning remissions, hectic flush, sweating at night, emaciation and prostration. When the disease is so far advanced as to give rise to a palpable tumour, the urine may be turbid and milky-looking when it is passed, and on standing for a time a thick yellowish or greenish or dirty-grey deposit may fall to the bottom of the glass. The reaction is acid unless the disease is secondary to tuberculosis of the bladder or the disease has spread down the ureter and involved the bladder, causing cystitis, when it may be alkaline and ammoniacal. The deposit, if examined microscopically, is seen to be made up chiefly of pus cells, but there may also be renal epithelial cells, fragments of renal tissue, small caseous masses, phosphates and tubercle bacilli. The amount of blood is very variable; a large quantity is unusual, and an absence of blood is by no means uncommon ; nevertheless, a sharp attack of painless hæmaturia may be the very first evidence of the presence of the disease. The amount of pus also varies: the largest quantity is present when the pelvis of the kidney is the part primarily and most affected. A thick deposit, occupying the lower fourth or third of the specimen glass, may form, or there may be only a few pus cells to be detected under the microscope.

Tubercle bacilli are difficult to detect. It is best to take a specimen of fresh urine, centrifugalise it, and prepare and stain several cover glass preparations of the deposit thus obtained. A careful and prolonged search of several slides should be made before assuming that there are no tubercle bacilli present, and even the inability to detect their presence in this way does not necessarily prove that the disease is not tuberculosis. If any doubt remains, guinea-pigs should be inoculated with some of the sediment. After three or four weeks they should be killed and carefully examined for signs of tuberculosis.

Calculous pyonephrosis is the condition which is most likely to be mistaken for tuberculous kidney, and in making a differential diagnosis between these

two diseases the following points should be attended to:—

1. A strong family history of tuberculosis would be in favour of tuberculous kidney.

2. A careful examination of the lungs, testes, prostate, vesiculæ seminales, joints, and other parts of the body should be made for evidence of tuberculous disease, and if found, it would point to the renal tumour being a tuberculous kidney.

3. The detection of tubercle bacilli in the urinary sediment is of the utmost importance, and would definitely indicate tuberculous kidney.

4. Inoculation experiments in cases in which no tubercle bacilli are found, and in which there is any doubt, should be resorted to. If after several weeks the guinea-pigs are still healthy, it is strong evidence against tuberculous kidney. The disadvantage of this method is the long delay before a definite conclusion can be arrived at.

5. An examination by the X-rays in the hands of a competent operator is of great service. Many cases which formerly had to wait until the result of the inoculation was known, can now be definitely determined to be cases of renal calculus. The errors in the hands of a skilled radiographer are very few indeed.

6. The reaction to tuberculin may also help to clear up doubtful cases ; or, perhaps, even the tuberculo-opsonic index may be of help.

Polycystic kidneys may become enormously enlarged, being converted into a large number of cysts of varying size. In one recorded case one of the kidneys weighed 16 lbs. and measured 15¼ inches in length. It is characteristic to find both kidneys affected. They may be displaced and become moveable. The arteries may be thickened and tortuous, and it is common to find evidence of hypertrophy of the left ventricle. There may be severe pain in the loins and attacks of profuse and recurring hæmaturia. On the other hand, there may be no symptoms until uræmia sets in. The patient may seek advice for an abdominal tumour or tumours which are found to give the characteristic signs of a renal or of renal tumours, and to be hard, tender, and bossy. Although the tumours may be very large, the kidney shape and outline may be maintained. The urine is usually similar in character to that found in chronic interstitial nephritis. It may be normal or slightly increased in quantity. It is pale and clear. The reaction is acid or neutral. The specific gravity is usually under 1010, but may vary from 1008 to 1020. It contains a small amount of albumen, and occasionally a good deal of blood. The urea may be diminished in amount. Hyaline and granular crests may be found on microscopical examination.

The diagnosis of cystic kidney is not difficult if a patient is found to have a sallow, anæmic appearance; passes urine of the above description; has signs of chronic uræmia, such as headache, vomiting, diarrhœa, muscular twitchings, and drowsiness; has thickened and tortuous radial arteries and a high-tension pulse; has signs of hypertrophy of the left ventricle —these signs and symptoms being associated with the presence of two large renal tumours, or even one large tumour and an increased sense of resistance in the other loin. These patients may be of any age from infancy to 70. The presence of two large renal tumours, even with the above symptoms absent, would be strong presumptive evidence of cystic kidneys. A renal tumour of large size, which has been found to steadily and gradually enlarge and to have a hard bossy surface, is most likely to be a cystic kidney, especially if any enlargement of the other kidney can be determined.

When hæmaturia is the prominent symptom it may be difficult to distinguish a cystic kidney from a malignant growth. If the arteries are thickened, the heart hypertrophied, and there are retinal changes. the disease is, in all probability, cystic kidney.

The following case illustrates the condition: *cystic kidneys with uræmia.*—Fred. S., aged 27 years, was admitted on March 4th for continued vomiting and general weakness. He was married and had three healthy children. A fortnight before admission he began to suffer from sickness and he gradually became very weak. Previous to this he stated that he had enjoyed the best of health. On admission his pulse rate was 86 per minute, and the radial artery was thickened; his temperature was 98° F., and his respiration rate 14 per minute. Mentally he was dull and apathetic; his lips were cracked and bleeding, and his tongue and teeth were covered with sordes. The urine had a specific gravity of 1010, and was pale, the urea amounted to 1·4 per cent., and there was one part of albumen per 1000. The abdomen was distended, and two large tumours could be felt, one on either side in the lumbar regions and filling up the loins. There was a band of resonance between the right tumour and the hepatic dulness, and they were evidently kidney tumours. A diagnosis of cystic kidneys was made. On March 7th he had profuse diarrhœa. On March 8th he had a good deal of muscular twitching, went into coma without convulsions, and died.

Post-mortem, the right kidney was cystic, weighed 41 ounces, and measured 10½ inches by 5 inches by 2½ inches. The left kidney weighed 37 ounces, was also cystic, and measured 9 inches by 4½ inches by 2 inches. The fluid in the cysts was dark brown and contained altered blood and cholesterin. The heart weighed 13 ounces.

Hydatid cyst of the kidney may lead to no abnormal symptoms or signs, or may give rise to a tumour which nearly fills the abdomen. The cyst may form beneath the capsule between it and the kidney or in the substance of the organ itself. It is a very rare disease in Great Britain, though commoner in other parts. Of 2,111 cases of hydatid cyst involving all parts of the body, in 115 only, or 5·44 per cent., were the kidneys affected (Morris). The left kidney is much more frequently implicated than the right. In over 80 per cent. of the cases rupture of the cyst occurs at some time into the pelvis of the kidney. There may be no indication of the disease until a large tumour manifests itself. The tumour is usually smooth and rounded, and, if superficial, the characteristic hydatid thrill may be elicited on percussion. It is situated in the renal region, and the kidney may be made out to be connected with it.

Pain, as a rule, is absent, but there may be a sense of discomfort, weight, and dragging in the affected loin. Colic and hæmaturia may occur, the former from the lodgment of a daughter cyst in the ureter, if the cyst ruptures into the pelvis; the urine in consequence may contain daughter cysts, shreds of membrane, and a milky deposit which, if examined micro-

scopically, may be found to contain scolices and hooklets. Blood may be present in variable quantity. Pyelitis and cystitis may result, the urine becoming turbid and cloudy. If no ruptures take place, the urine is normal. When rupture into the renal pelvis has occurred and has been followed by colic, a diminution in the size of the tumour and the passage of characteristic hydatid debris in the urine, the diagnosis is simple, but at the same time it must be remembered that hydatid cysts of the liver, peritoneum, and retroperitoneal tissues may very occasionally open into the pelvis of the kidney or the bladder.

When the urine is normal the diagnosis is more difficult, and the following points of importance should be investigated before a definite conclusion is come to:—

1. Whether the patient has resided abroad in a recognised hydatid district, *e.g.*, Australia, Silesia, Iceland, etc., or his occupation has necessitated constant contact with dogs.
2. Whether the patient has been accustomed to partake of much uncooked vegetable food. The most marked case of hydatid I have ever seen was a man who earned his living by picking watercress. He had over one hundred cysts in his abdominal cavity and abdominal viscera.
3. The gradual growth of a tumour which is smooth and rounded and which is not accompanied by pain, pyrexia, or tenderness.
4. The presence of the characteristic hydatid thrill.
5. The detection of hydatid cysts in the liver or any other part of the body.
6. The existence of decided eosinophilia.
7. The presence of a specific serum reaction.

It is most likely to be mistaken for hydronephrosis, and it may be necessary before being able to make an accurate diagnosis to explore the tumour with an hypodermic needle and analyse the fluid thus obtained.

In hydronephrosis the fluid is usually clear, pale yellow or watery; occasionally it may be slightly turbid. The specific gravity varies from 1006—1020. The reaction is acid or neutral. It usually contains urea, uric acid, traces of albumen, and sodium chloride, which last constituent is in slightly greater abundance than in normal urine. In very old cysts there may be neither urea nor uric acid. A microscopical examination may show the presence of some renal epithelium.

In *hydatid cyst* the fluid is clear, colourless, or slightly opalescent. It is alkaline in reaction. The specific gravity is low, and varies from 1006—1010. It contains no albumen, but traces of a substance which has the power of reducing Fehling's solution. Sodium chloride and succinic acid are also present. Minute white specks may be seen floating about in it. Microscopically, scolices, which are round or oval bodies with a slight constriction at one end, a crown of hooklets and four suckers, may be found; also loose hooklets and shreds of laminated membrane showing transverse striation, with a granular inner surface.

The urine in a case of hydatid of the kidney is normal unless the cyst ruptures into the pelvis of the kidney. If rupture takes place, the urine may contain a variable amount of blood which is intimately mixed with it. It may vary in colour according to the amount of blood present, from a blood-red to just a faint brownish tinge. Daughter cysts and shreds of membrane may be present, and a milky deposit which, on microscopical examination, may be found to consist of hooklets, scolices, red blood corpuscles, and a few pus cells. Pyelitis and cystitis may result, and the urine become turbid and cloudy from the presence of pus.

(*To be concluded in next issue*).

Sport.

Rugby Football.

GUY'S v. STREATHAM.

The Streatham Club suggested that they should come to Honor Oak Park instead of playing at their own ground where changing accommodation is limited. Consequently the fixture took place at the Guy's ground on Saturday, November 4th.

It can justly be claimed that for three-fourths of the game Guy's were well in their opponents' half, and almost all of that time near the 25 yard line. But it is not always easy to pile up points when the majority of one's opponents throw aside all idea of attack and pack their line with defenders. Streatham defended constantly, and they did it well. Their forwards aided the backs, and as attacks varied from one side of the field to the other, these forwards came across swiftly to tackle and spoil wherever possible. A misfield by Pirrie led to the first try. Pritchard snapped up the ball, and carrying two opponents with him crossed for the first try. Stokes easily goaled. No further addition to the total was forthcoming till nearly half-time, but in the meantime, Eccles who played pluckily, but rather fails in pace, had one or two chances. Rook was rather handicapped also by his centre's badly-timed passes, and further got a nasty bump on the head, which he felt perpetually, and which prevented him showing true form. The Streatham men were kept back by Millett, who played his best, but they came again, and when a score looked imminent, Pritchard dashed in and dribbled right away to the Streatham goal, where Stokes, who had backed up, scored. Just after, Stokes got away down the touch line. His reverse pass, cleverly taken by Medlock, was handed to Guinness, who touched by the post. Stokes goaled, and ends were changed, the Hospital being 13 points up.

Streatham pressed at once on recommencing in Guy's 25. Rook came through. Had he been uninjured his pace would have done the rest, but he preferred to hand to Stranach, who was tackled a few yards out. He managed to get rid of the ball, though, and Stokes came along at the right moment, kicking over. Stokes regained, and got a try which was too wide to convert. The remainder of the game was pointless, though Streatham showed up more aggressively towards the end. Final score: Guy's, 2 goals 2 tries, 16 points; Streatham, nil. Team:—

GUY'S.—H. Millett (back); A. L. Stokes, C. B. Pritchard, C. D. Eccles A. F. Rook (three-quarters); C. H. Medlock, H. Guinness (halves); R. S. Kennedy, W. S. Stranach, H. Hoby, O. Parry Jones, M. Tweed, A. L. Liebson, A. B. Danby, L. Horsley (forwards).

REMARKS.—The forwards played better and gave their backs plenty of opportunities. Guinness improves, but still some of his passes are a little erratic. The backs did not make full use of their

opportunities, but, as mentioned before, a packed defence takes some getting through. Eccles ran straight, and, in this respect, as in regard to pluck, is to be commended. He got a nasty knock on the thigh, which, like Rook's injury, did not improve his play. Millett played a very fine game indeed. The tackling all round was better, but some of the forwards still persist in going for the head or shoulders.

Association Football.

GUY'S v. OLD CARTHUSIANS.

On Saturday, October 28th, after a keenly-contested game, played in fine weather at Honor Oak Park, these two teams finished level with a goal each to their credit.

Guy's started well, and for the first quarter of an hour easily had the best of the game. Both Coxon and Stebbings had repeated shots, but the opposing goalkeeper was always equal to their attempts. Rhys Evans during the first half had for the most part only long shots to save, and these he successfully dealt with. Just before half-time Veale missed an open goal, and within a few minutes King was disabled and obliged to leave the game.

Starting the second half with clean sheets, both teams settled down to very strenuous football, and after the Hospital had missed a second open goal, the Old Carthusians drew first blood through their inside left. Keeping up their pressure round their opponents' goal, Guy's eventually drew level through Veale, the same player having very bad luck a few minutes later with a capital head shot from a corner kick. Though both sides played their hardest, neither could add the winning goal, and a keen and exciting game thus ended in a draw, with a score of one goal to each side. Team:—

GUY'S.—Rhys Evans (goal); Neale, Russ (backs); Camp, Kyle, King (half-backs); Spong, Coxon, Veale, Stebbings, Bevis (forwards).

REMARKS.—Neale played well at back, but Russ is by no means as sure as he ought to be. Camp and King successfully kept their respective wings in check, and the latter was very unfortunate to get crocked so early. Spong is settling down well to his new position, and after a few more games he and Coxon should prove a useful combination. Bevis is playing well, but Stebbings must see that he is not starved, and frequently in preference to trying to trick too many men should get rid of the ball sooner, otherwise he is distinctly good. Veale is useful in combined movement with the other forwards, but is weak in front of goal.

GUY'S v. CASUALS.

On Saturday, November 4th, the Hospital beat the Casuals by two goals to one. Both teams turned out a man short, but Guy's were able to obtain the services of a spectator, whereas the Casuals played ten men throughout. From start to finish the game was very evenly contested, except for the last five or ten minutes, when the Hospital kept the Casuals penned in their own half till the whistle blew for time. There was no scoring at all during the first half, both goalkeepers successfully dealing with any shots they were called upon to save. The three Hospital insides were frequently conspicuous, but always failed in front of goal, though perhaps the opposing goalkeeper was rather lucky on one or two occasions. Neale was chiefly responsible for stopping many dangerous rushes on the part of the Casuals' forwards, who, though only four in number, were frequently one too many for Guy's halves.

The Hospital started the second half well, and both Coxon and Veale had bad luck in not scoring within the first few minutes. Shortly afterwards, however, their efforts were rewarded, for Coxon, receiving the ball, passed to Stebbings, who beat his man and returned it to Coxon, who quickly passed it on for Veale to place in the net. Within a few minutes Montgomery, receiving well within the Guy's half, beat the opposing defence and put the Casuals level. The play was now chiefly in favour of the Hospital, and though the forwards made repeated efforts to gain the lead, it looked as if the game were going to end in a draw, until Coxon, following up a shot which the Casuals' goalkeeper had just managed to stop, headed it past him into the net. The whistle going for time shortly afterwards, the Hospital were thus left winners of an excellent game by two goals to one. *Team* :—

GUY'S.—Rhys Evans (goal); K. Keer, Neale (backs); Camp, Kyle, —. Keer (half-backs); MacManus, Veale, Coxon, Stebbings, Bevis (forwards).

REMARKS.—Both teams played well, and Rhys Evans was always safe. Camp gets through a lot of work, and kept his opposing wing well in check. The forwards are excellent till they get within range of the opposing goal when they dribble about too much. Unnecessary dribbling about and endeavouring to trick as many men as possible may be very gratifying to the player and attractive to the spectators, but it does not win matches, and always disorganises the whole forward line. Stebbings and Coxon are the chief offenders in this respect, and both should remember that a pass back to their halves is preferable to running back into their own half line and upsetting the latter as well as losing their own positions in the forward line. Both these players are extremely useful, but would be more so if only they would go ahead more. Bevis is playing a good game, and should not be starved by his inside man.

Births.

PALMER.—On October 15th, at 52, Shrewsbury Road, Oxton, Cheshire, the wife of Harold Thornbury Palmer, West African Medical Staff, of a daughter.

KER.—On October 20th, at Otterburn, Northumberland, the wife of William Percival Ker, M.R.C.S., L.R.C.P., of a daughter.

Deaths.

WILKS.—On June 4th, at The Retreat, De Vaux Place, Salisbury, Herbert Lorraine Earle Wilks, M.R.C.S., L.R.C.P., formerly of Grove House, Salisbury, second son of the late Rev. Theodore Chambers Wilks, some time Vicar of Woking, aged 43.

TARGETT.—On October 30th, 1911, at Eastbourne, Harold Edgar Targett, aged 17, the dearly-loved son and only child of Mr. and Mrs. Targett.

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE

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Passim.

WE publish elsewhere in our columns an obituary notice of the late Sir Samuel Wilks. There must be many old Guy's men throughout the country who were personally or professionally acquainted with him, and who have interesting reminiscences of, or anecdotes connected with him which we trust they will communicate to us. The immense amount of work which Sir Samuel accomplished during his life time is well shown by the bibliography which we publish, as we feel sure that a published collection of his works would not only be appreciated by his friends and pupils, but would be of great value from a medical and scientific point of view.

EVERYONE who has the interests of Guy's Hospital, and indeed, of the whole system of charitable sick relief at heart, has been distressed at the numerous allegations against Guy's which have appeared so prominently in the Press, or rather in certain sections of the Press, of late. As long as these allegations were confined to the papers in question any answer on our part would have been as useless as it would have been impolitic. In modern journalism of a certain class, enterprise is so apt to run away with truth, and headlines with facts, that thinking people have come to parody the catch phrase of one of our contemporaries, and "If you see it in . . . it isn't so," is, unfortunately, very near the truth. Those connected with, or interested in, the hospital have always been able to obtain the true facts of the so-called "scandals," while a simple perusal of figures will show that the confidence which the patients have in the hospital is in no way diminished. There has, consequently, never been the slightest need for any official or unofficial "explanation," nor, indeed, has it been looked for by anyone who has an intelligent knowledge of the management of our large voluntary hospitals.

WHEN, however, a responsible body, such as the Southwark Guardians, begins to make statements of a similar nature, the time has come when it is necessary to point out the actual facts of the case. We print elsewhere in our issue a copy of a letter sent by order of the House Committee to a subscriber who inquired as to the most recent case, and its perusal throws an interesting light on the Poor Law arrangements in Southwark. The accommodation in the voluntary hospitals of London is hopelessly inadequate to deal with all the people who, by the nature of their illness and their circumstances, are fit persons to receive admission to a hospital. In London there are 2½ hospital beds to every 100,000 of the population, as compared to 12 in Bradford, 16 in Birmingham, and 199 in New York. Consequently, to anyone who will face facts, it is plain that *all* those who rightly enough deserve admission to hospital, cannot, owing to simple lack of beds, receive it.

IT is, therefore, obvious that some body, other than the hospitals, must deal with those cases

for which there is no room, and that body is the Poor Law authority. Further, in selecting the cases which shall be admitted, the hospitals must consider which cases they will be able to benefit most, owing to their special facilities for treatment. While a certain number of beds must be, and, of course, are, reserved for accident cases, yet these cannot be out of proportion to the beds kept for ordinary surgical cases, and in the event of all the beds being full, it seems almost unnecessary to state that more beds cannot be conjured into existence at a moment's notice. The demand upon the surgical accommodation of the Hospital has increased very rapidly of late years, until at the present moment double the number of beds could be easily utilised. The reasons for this increase are mainly two; namely: the rapid advance of surgical science and the Workmen's Compensation Act. Surgical advances have brought more and more conditions into the scope of operative treatment, while the Workmen's Compensation Act necessitates a great many more operations for such conditions as hernia, varicocele, etc., which cause an increased liability to accident or sickness claims.

It must, therefore, constantly happen that cases, and even urgent cases, will have to be transferred to the other authoritiy for dealing with the sick, namely, the Poor Law. This being so, it is plainly the duty of the Guardians to make arrangements for the reception of such cases with the minimum of delay. At present, however, in the case of the Southwark Guardians, the patient must first be sent to the relieving office, and from there to the Infirmary at Dulwich, a distance of three miles. It cannot be too strongly emphasized that when an institution such as Guy's Hospital contains its full complement of patients, room *must not* be made for further cases. The need for such room is constantly arising, and such a rule once broken would inevitably lead to almost permanent overcrowding with the attendant danger to all the other patients.

We see, therefore, that if the "scandals" are to be avoided the Guardians must make arrangements for the prompt reception of cases, either by the establishment of a proper receiving station in the district, or by an efficient service of ambulances. There is one other alternative; the provision of more hospital beds, which, were sufficient public support forthcoming, could easily be provided. A Local Government Board enquiry into the Poor Law arrangements of Southwark is, we feel sure, greatly needed; and it were better that the Southwark Guardians should put their own house in order before bringing unfounded accusations against other institutions.

We would remind our readers that subscriptions are now being collected for the Out-Patients' Tea on Boxing Day, and half-crowns will be gladly received by any of the following gentlemen: The Out-Patient Officers, Messrs. Pritchard, Campion, Liebson, Petley, Bond, and Gray. The Out-Patients' Tea is certainly one of the most popular and attractive of the many festivities of Christmas week at Guy's, and we know of no better way of spending the afternoon of Boxing Day than in watching the hungry little Borough children swallowing piece after piece of cake with an absolute disregard for the Ol. Ric. which almost inevitably follows, and enjoying the hour in a way possible only to those to whom such hours come but seldom.

We publish in our correspondence columns a letter protesting against the action of the authorities in allowing a Woman's Suffrage meeting to be held in the Physiological Theatre. While quite of opinion that such meetings are of interest to nurses and men alike, we are thoroughly in agreement with our correspondent that the Medical School is not the place in which to hold them. If the meeting is held with any political motive, then obviously the Hospital can take no official cognizance of it, while if, as apparently in this case, it is in the nature of a debate, why is not the Debating Society asked to give an evening to it and to invite the Nursing Staff? We publish a report of the proceedings elsewhere in our columns, and from it it will be seen that the meeting was of a strictly orderly character, but, nevertheless,

we hope that this will not be taken as a precedent for loaning the premises of the Medical School to any political party in search of converts, who may ask for them.

It is quite impossible in a general hospital to treat in a specialized and thorough manner, all the many disorders for which modern medicine has a treatment; but, nevertheless, there is one branch of treatment which has no place at Guy's, and which, if carried out, would be of great benefit to both students and patients. We refer to the treatment of such conditions as Scoliosis, Kyphosis, etc., by means of special gymnastic exercises. There can be little doubt as to the value of such treatment, and in practice the medical man is expected, not only to suggest exercises, but to prescribe them, and to give a definite opinion as to their possible and probable effects. A small gymnasium attached, for example, to the massage department, under the care of a competent man, would be of the greatest value, and would, we believe, meet a real need.

We would remind our readers of the Ball which is to be held on Monday next at Princes' Galleries. A few tickets are still to be obtained from the secretaries, Messrs. A. S. Roe and G. R. Hind, at the price of one guinea.

We are pleased to announce yet another addition to the rapidly growing number of demonstrations on selected cases in Out-Patients. Dr. Cameron will hold demonstrations on cases from Baby Out-Patients every Friday at 11.15 a.m. We trust that men will make a point of attending the various Out-Patient classes now being held, since the system is at present on its trial and its permanent retention as a definite method of teaching will depend largely upon the number of men attending the demonstrations.

We regret that owing to pressure on space several notes and contributions have had to be held over to the next issue.

Guy's Hospital and the Southwark Guardians.

With regard to the chronic difficulties between Guy's and the Southwark Guardians to which a recent inquest has once more called attention, we print, for the benefit of our readers, a letter addressed, by order of the House Committee, to a subscriber who had written to say that his future support of the funds of the institution would depend upon the answer.

Dear Sir,—Your letter with regard to Mrs. Beeston was read to the House Committee at their meeting yesterday, and I am directed to say that they thank you for your enquiries into her case.

You ask whether the report in the *Daily Express* is "correct," and it is a fact that there was not a single empty bed in the hospital on the 5th for a female erysipelas case, and consequently the house-surgeon had to refer the patient to the Poor Law authorities, who are under a legal obligation to afford medical relief to those whose circumstances render them eligible for such assistance.

On the day in question our ward for cases of blood-poisoning was absolutely full, and we were in some risk as regards the surgical cases in the other wards for women, since, had any patient after operation there been unlucky enough to develop erysipelas—and even in these days of most careful surgery such things will occasionally happen—we should have had to keep her where she was until a patient had gone out to leave an empty bed in the septic ward. Under these circumstances, having reached the utmost limit of our accommodation, what were we to do? Obviously it remained to call upon the Guardians to perform their duty to the sick poor to provide them with effective medical attendance, and this is where they fail to realise their own shortcomings, as is well pointed out in the *Hospital* newspaper (November 4th), a cutting from which I enclose; but it should be added in fairness to them that it is only since the passing of the London Government Act in 1899 that Guy's Hospital has been in the Southwark Union, and up to that time the people of Southwark had all the benefits and none of the inconveniences of a large London hospital in their midst. Hence a certain natural reluctance to modify their old arrangements, though they no longer suit the changed conditions, and though Guy's, in addition to saving the Union large sums in outdoor medical relief, is now paying the Poor Rate upon a heavy assessment of many thousand pounds.

You may hardly be aware how complicated are the arrangements with the Poor Law officers of Southwark. Our doctors have no authority to send a patient direct to the infirmary, however ill he may be. He has to go to the Relief Offices in the Borough Road, and these

offices are closed between 12 noon and 3 p.m., as you may see from the enclosed notice. After 5 o'clock in the evening patients have to go to one or other workhouse—men to Mint Street and women to Westmoreland Road, and it sounds incredible, but is true, that the Guardians have no complete arrangements at either place for cases, whether from Guy's or elsewhere, so ill as to require the comforts of a sick ward, or so much injured that they cannot safely be taken three miles by ambulance to Dulwich. Their argument is that such cases ought never to be sent to them; our reply is that we never do send them until the limit of our available accommodation is reached, and that it is then their part to do what is obviously demanded, namely, to provide emergency beds and proper medical and nursing attendance centrally in their own area for cases that cannot be moved to Dulwich, and, for such cases as can, to have an efficient ambulance service at all hours of day and night. In this particular case, as you may notice, the house-surgeon so far short-circuited the regular procedure that, by favour of the Medical Superintendent, whom he consulted by telephone, he was enabled to send the patient direct to the infirmary, instead of having her wait, either at the Relief Office or at Westmoreland Road.

In conclusion, I may add that a larger number of female beds for surgical and accident cases is greatly to be desired, and, by building new wards on the top of our present Medical Block, might, with sufficient support from the public, be provided, but in the meantime our beds are constantly worked to their full capacity, and the Guardians of Southwark seem unable to realize that, when the hospital can do no more, it remains for them to take their share of the burden.—I am, dear Sir, yours sincerely,

E. C. PERRY.

Guy's Hospital,
November 17th, 1911.

Change of Address.

H. W. Doll, M.R.C.S., L.R.C.P., to 15, Park Road, Hampton Hill, Middlesex.

A. Hammond-Smith, L.D.S., from 211 to 219, King's Road, Reading.

G. P. Pollitt, L.D.S., D.D.S. (Penn.), from 49, Queen Anne Street, to 50, Brook Street, W.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Bradshaw Lecture.

THE Bradshaw Lecture will be delivered in the Theatre of the Royal College of Surgeons by Mr. R. Clement Lucas, on Wednesday, December 6th, at 5 p.m. The subject of the Lecture will be "Some Points in Heredity."

Guy's Hospital Debating Society.

The second meeting of the session was held in the *Smoking-room*, on Thursday, November 9th, Mr. T. B. Layton, Vice-President, in the chair. The motion before the house was "That the method of Strike is the legitimate weapon of Labour against Capital."

Mr. J. A. RYLE in proposing the motion said, that the working men of England, though forming the vast majority of her population, were obtaining less than a living wage, and were, though Britons, practically slaves. The method of strike was the legitimate weapon because it was the only one—the only means that labour had of retaliating on the monstrous oppression of capitalized interests.

Mr. R. A. FAWCUS opposed. He agreed that the working classes had legitimate grievances; but the method of striking was a bad means for redressing them, because it was ineffectual. By striking, temporary amelioration only could be secured, for the reason that the laws of political economy do not permit arbitrary alterations in working conditions on such haphazard principles. The value of arbitration was not so limited as had been represented, in many trades it worked admirably. On moral grounds striking was unjustifiable, because it involves hardship for others than those immediately concerned.

Mr. MULLALLY seconded the motion. Conflict between capital and labour is inevitable, because their interests are conflicting. As to the efficacy of strikes, the undoubted increase of prosperity among the working classes during the last thirty years is due largely to their influence. The harm a large strike may do to the country is not to be compared to the gain to its promoters.

Mr. REEVE seconded the opposition on moral grounds. The effect of a strike, on the whole, must be harmful rather than the reverse. Further, striking is not a spontaneous movement, it is engineered by an unscrupulous and ambitious minority. It leads to incivility and discontent. It is wrong to say that striking is a movement in the cause of personal liberty. The intimidation practised in recent strikes has abundantly proved the contrary. It is no defence of strikes to say that it is the only method available, even were this the case.

Mr. KEITH spoke as a worker, but his right to do so was afterwards contested.

Mr. SANDISON said that while capital has many weapons labour has only one—the power of ceasing to labour. Strikes are neither indications nor causes of a growing separation of the classes—they prove rather that the classes are drawing together and learning at last to realize their common needs.

Mr. RICHARDS urged that the labourer has as much right to do what he likes with his labour as the capitalist has with his capital.

Mr. WILLOUGHBY argued that the action of many capitalists was just as high handed as any on the part of labour. We must not hastily adjust the morality which should govern the action of labour and capital. The question is involved by the intersection of interests and motives, and all were, to some extent, slaves of circumstances.

Mr. SCHLESINGER maintained that strike was eminently justifiable, though hopelessly anti-Christian.

Mr. WEBB, Mr. HEATON, and Mr. CREASY also spoke.

Mr. LAYTON then summed up. The question was to be decided from two different standpoints, the standpoint of morals and the standpoint of commerce.

Mr. FAWCUS and Mr. RYLE then summed up for their respected sides, and the motion was put to the vote, after a recount it was declared lost by a majority of eight to seven.

The speeches were of a high order of merit, but the attendance was deplorably small.

It is to be regretted that no force of argument seems able to persuade men how important to them the art of public speaking may turn out to be. Nothing, it seems, but a ridiculous diffidence, utterly out of keeping with the rest of their conduct, stands in the way of their acquiring easily, and, if they would only believe it, enjoyably, a most valuable asset to their medical and social accomplishments. The Committee would take occasion again to urge on all members of the Students' Club the shortsightedness and folly of neglecting such an opportunity, which may influence their whole professional career.

Papers by Guy's Men.

A. E. Boycott, M.A., M.D.; Lecturer in Pathology, Guy's Hospital: The Rate of Regeneration of Hæmoglobin after Hæmorrhage.—*Journal of Pathology and Bacteriology*, Vol. xvi., No. 2.

A. E. Boycott, M.A., M.D., and R. A. Chisolm, M.B., M.R.C.P. (Greville Research Student): The Influence of Under-feeding on the Blood.—*Ibid.*

R. A. Chisolm, M.B., M.R.C.P.: The Influence on the Blood of the Rat of the Presence of a Transplanted Sarcoma.—*Ibid.*

John D. Malcolm, F.R.C.S. Edin.; Surgeon to the Samaritan Free Hospital: Two Rare Abnormalities observed in the course of Operations (Illustrated).—*Lancet*, 18th November, 1911.

E. P. Minett, M.D., D.P.H., D.T.M. & H.; Assistant Government Bacteriologist, British Guiana: Water Analysis in the Tropics.—*Journal of Royal Sanitary Institute*, October, 1911, Vol. xxxii., No. 9.

E. P. Minett, M.D., D.P.H., D.T.M. & H.: Purification of Vat Waters by the Chloric Process.—*Journal of Royal Institute of Public Health*, Vol. xix., No. 8, August, 1911.

F. H. Parker, B.A., M.B., B.C. Cantab.: Rheumatoid Arthritis. (A personal experience of the disease.)—*British Medical Journal*, 18th November, 1911.

H. F. B. Walker, M.D.: Acute Inversion of the Uterus.—*Ibid.*

Women's Suffrage.

A DEBATE on Women's Suffrage, arranged by the London Society for Women's Suffrage, took place in the Physiological Theatre on Monday, November 13th, at 8.30 p.m. Dr. Hale White occupied the chair, and there was a large attendance of the Nursing Staff, with a sprinkling of the male representatives of the hospital and some visitors.

Miss JANET THOMSON, B.A., opened the debate in the affirmative, and proposed a motion to the effect that it was neither just nor expedient to withhold the suffrage from women. At the outset she protested against the idea that suffragists were hybrids or unnatural folk. She believed as firmly as any that the home was woman's ideal sphere, but that could only apply to the women that had a home. Co-operation between man and woman on equal terms was the goal to be aimed at. In regard to the upbringing of children, married women naturally had the greatest knowledge and experience, and they should be free to exercise it to the fullest extent in legislation or otherwise. The speaker quoted the comparatively low infantile mortality in countries where women had the vote, and considered the one dependent on the other. In our political system in many things we fail to consult the experts, namely, the women of the country. Consider also the gross anomalies of the marriage laws, especially in regard to the authority of husband and wife, the father, for example, settling the question of vaccination of the children, a subject of which he is manifestly not the best judge. Were women in possession of the suffrage such absurdities would cease to exist.

Turning from the purely domestic side, Miss Thomson touched upon the industrial aspect of the question, especially in regard to the sweated labour performed by women. In this sweating of women's work the Government was as much at fault as the private employer. Men, on the other hand, by virtue of their power as voters, have secured a Fair Wages Clause for themselves, and, therefore, women as voters, could do the same. Lastly, from the standpoint of bare justice, women should have the vote. Why should the principle of "no taxation without representation" apply only to men? Women already pay £25,000,000 in taxes, and now, crowning indignity, they have to contribute to the salaries of the M.P.'s in whose election they are allowed no share. No wonder they resent such treatment.

Mr. GEORGE CALDERON, of the National League for opposing Women's Suffrage, opened for the opposition. Speaking as a married man he did not consider his position in the home so privileged or so autocratic as the opener had described. The argument based on the comparison of infantile mortality in suffragist and non-suffragist countries was manifestly absurd, infantile mortality being a question of environment and density of population. On the industrial side it was the physical difference between man and woman that settled the question of wages, women's capacity for industrial labour being necessarily restricted, compared with men's.

Women could not be paid equally with men for work done, for, in the majority of cases, after a short time the woman married, and it was thus waste of time to the employer to train her specially for particular work. On general principles he objected to allowing all the chief national affairs to go through Parliament, and women should be discouraged from seeking to make use of Parliament to remedy their grievances. Women should rather make use of the machinery they already have, in their social influence, for example, and not seek to trespass in spheres for which they are unsuited.

Miss CLEMENTINA BLACK supported the motion: The function of Government was to secure justice for and fair treatment of all its citizens, women as well as men. Such questions as the Minimum Wage mattered immensely to women, and it was most important that women should have a direct voice in the management of such affairs. Women have special knowledge, and should be given free opportunity to show it. Men and women should not be divided in matters of organisation, but act together as sisters and brothers. A government has no sex. There is a vague feeling that women are inferior and not equal to men in matters of government, and the present laws help this view, whilst the absence of votes fosters it still further. Men as well as women were injured by the absence of Women's Suffrage.

Mr. RYLE was consumed with indignation at the audacity of the opposer of the motion. Had he forgotten the outrageous sweating of women by male employers? The giving of votes to women would not herald the millenium, but it was just, and who were men that they should deny it to women? Women's Suffrage might possibly be a failure at first, but it would mean the coming of a real democracy, not an autocracy.

Mr. SANDISON thought the debate had so far failed to deal with the essentials of the problem. It was not a question of the various grievances of women in regard to vaccination or sweated labour, but the more fundamental question of the relative capacities of men and women in different directions. The pyschical and physical differences between men and women made all talk of equality between them impossible. In many things women were superior to men, but in certain things they were inferior, and it was necessary to recognize that fact. The demand for Women's Suffrage implied much more than the mere vote; it was the claim of women to act on exactly equal terms with men in the ultimate councils of the nation. Psychically women are unsuited to positions of entire responsibility, especially in political affairs, and on account of this fundamental mental divergence from men it was most undesirable that the sexes should equally co-operate in all government. A sex war was by no means an impossible outcome of the granting of Women's Suffrage, and in such a case a resort to physical force would result, leading to a recrudescence of barbarism instead of the golden age prophesied by the suffragists.

SISTER LYDIA expressed her view that the meeting would be better occupied in deciding how women are to meet the opportunities of the future which will undoubtedly be theirs. Women have not claimed the suffrage entirely of their own seeking; the idea and ideal has come naturally to their mind, and in due time the fact must follow. In the adoption of machinery by our forefathers much unrest and difficulty was produced, and still many would doubt the real value of the changes so brought about. Nevertheless, the world makes for progress, not for peace and content. The times are too complex for sex disabilities, yet none can deny that there are many such. Women, with their motherhood and their maternal instinct, and man, with his stronger physical powers, and, at present, perhaps always, keener mental faculty, must meet on common ground. In the highest sense the exercise of the franchise means social and political liberty, and this privilege the lives of modern women demand. By the expectation of great things great results will follow.

SISTER OUT-PATIENTS asked the pertinent question why women, out of their meaner wages, should have to pay equal taxes with men?

Mr. MULLALLY considered that the argument that the franchise was unnecessary could not hold good, considering the historical results of the Reform Bill. In the main women are equal to men, and it is therefore only logical to give them the vote. Incidentally, whilst admiring the boldness of Mr. Sandison's remarks, he did not think much of his arguments.

THE PROPOSER and OPPOSER then replied to the various points raised on both sides, and on the motion being put to the vote it was carried by a substantial majority.

Students' Representative Council.

THE University of London Students' Representative Council stands essentially for the welfare of students of the University. It was formed in March, 1905, to represent students in matters affecting their interests, to afford a recognized means of communication between students and the University authorities, and to promote intercourse between the various schools and colleges of the University.

That the Council has done much to attain the ends for which it was formed may be seen from the following instances of its work:—Publication of a University handbook dealing with the social and athletic side of University life, arrangement of inter-collegiate debates and socials, representations to the authorities concerning inter-collegiate lectures, examination conditions, extension of luncheon interval for candidates, etc., while now it has under discussion the publication of a University diary for the use of students.

Each college is entitled to send representatives to the Council. Thus, the various colleges are brought into touch with one another, and are enabled to unite for the common good of the University.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—ED., G.H.G.]

The late Sir Samuel Wilks.

DEAR SIR,—Though you will probably be inundated with anecdotes of our lamented teacher, Sir Samuel Wilks, I cannot refrain from sending you the following, as it thoroughly illustrates his absolute honesty:—

A fellow Guy's man, living near me in the country some years ago, told me that he had sent a patient with obscure nervous symptoms to consult Wilks, who, after giving him a two hours' examination, dismissed him with the following statement:—"I am sure I don't know what is the matter with you, and I question whether anyone else can tell you."

Unfortunately, as in this instance, he sometimes conveyed the impression to patients that he was unsympathetic, which was far from being really the case.—Yours faithfully,

A. DE WINTER BAKER.

144, West Hill,
Putney Heath, S.W.
November 19th, 1911.

DEAR SIR,—Your will doubtless receive many contributions from the numerous friends, colleagues, and pupils of the late Sir Samuel Wilks, and I feel somewhat loth to add to their number. My sole object in writing is to acknowledge in a few words the debt I owe him. As his house-physician for four months in an impressionable period of my life, I naturally came under his influence, and what that influence has been for me it is difficult to estimate.

We all know his powers as a scientific man, as a pathologist, as a physician, and others more competent than I am will speak of them. What I should like to emphasize is, his remarkable personality, his absolute honesty of purpose, his simplicity of character. Nothing small, nothing even remotely underhand or dishonest ever came from him. It was impossible even to think in any other than a straightforward way in his presence. His influence therefore, on the mind of Guy's was incalculable, and always for good.

Great as were his intellectual powers, and much as we admired him for them, his heart was greater. It was his love for Guy's, for Guy's men, and Guy's traditions, and his love for truth which made him such a power in the place, and explains the affection and esteem always so enthusiastically expressed at any meeting of Guy's men. And now that he has gone from us we feel that, as in the case of some of his great predecessors, his influence at Guy's will remain, that his spirit will dwell among us and help us to continue those great traditions on which the fame of Guy's has been built up.—I am, dear Sir, faithfully yours,

PERCY WARNER.

Woodford Green,
November 11th, 1911.

The Prospects of the Medical Profession.

SIR,—In answer to "Cotswold": I have practised in a hunting county, but not many hunting men lived in the district in which I practised. I have, however, had patients, hunting men and others, who have gone to bonesetters. On balance I can certainly say that my reputation has been benefited as a result of the treatment my patients have received from bonesetters.

I have come in contact with midwives and district nurses. As regards confinements: From the time of my starting in practice I declined to attend any midwifery cases for less than a guinea. Those who could not afford that fee employed the midwife, and I was always ready to assist her in any times of difficulty, neither asking, nor expecting, any fees for my assistance. As regards district nurses: I have always found they relieved me from attending cases that were too poor to pay fees. Hence, I was always in harmony with the midwife and the district nurse, and reaped the advantage of being relieved of much unremunerative work, whilst at the same time benefiting from being called in to any difficult cases, which gave me experience.

I have come across on *very* many occasions certain town "specialists" and bacteriological "quacks." "Cotswold," however, supplies his own answer. In one of his cases, after such treatment, "a condition suspiciously like anaphylaxis supervened." In other cases he has had them handed back to him "a human wreck for whom you could do nothing." Precisely. Has not "Cotswold's" reputation been enhanced by such cases? Have not the so-called "specialists" suffered in reputation thereby? Then what has "Cotswold" to grumble at on this score?

How much I got per visit under my Poor Law appointment I do not know. I never worked it out. This, however, I do know, that by holding the Poor Law appointment I had a fixed income, and got something for seeing the poor people, whereas, otherwise, I should have had to see many of them, and never get any fees at all.

As regards half a crown for vaccination: "Cotswold" will, I think, admit that to allow five minutes for each vaccination is ample; that makes twelve in an hour; that is one pound and ten shillings earned in the hour. Not bad, surely? When I was Public Vaccinator I used to vaccinate from fifteen to twenty in an hour, thus making over two pounds for an hour's work.

The Provident Dispensary appointments that I held undoubtedly paid me. Whether the payments were better than in most districts, or whether the Committees did their work better, I don't know, but the appointments were always satisfactory to me.

I know nothing about "heavenly powers," but I certainly escaped "collision" with the Poor Law authorities and with the Committees of the Provident Dispensaries.

Unfortunately some men must fail at all professions, and at any kind of business. A limited number of these fail through no fault of their own, such as ill-health, etc., but the great majority fail through some fault in the individual, such as, apart from knowledge, want of tact, etc.

I deny that "the future of the profession is dark," and further, I again say that the Insurance Bill will benefit us enormously if only we will pull together. If we won't pull together, are not we to blame and not Lloyd George?

I am delighted to be able to agree with "Cotswold" on one point, viz.:—that a means should be found to "protect our interests," and to deal drastically with "blacklegs."

Pessimism never did any good yet. Let us look on the bright side of things, for there is a silver lining to even the darkest cloud, although, in the present case, I fail to see even the black cloud if only we will stick together.

In conclusion, I would add, that if I had my life to live over again, I should join the ranks of the Medical Profession and enter at Guy's.—Yours faithfully,

"MIDDLE-AGED GUYITE."

November 12th, 1911.

The Female Suffrage Meeting in the Physiological Theatre.

SIR,—I desire to protest most emphatically against the employment of the Medical School for party purposes. There is a Debating Society, at which such questions as female suffrage can be discussed, and to which visitors, male and female, may be invited. But it seems to me a gross dereliction of duty on the part of the authorities to allow one of the suffrage societies to hold a meeting in the Physiological Theatre. It is true that opponents of the suffrage were permitted to take part in the discussion, but the fact remains that the object of the meeting was to induce members of the nursing staff to join the ranks of the suffragists. If the School were in financial difficulties it might be permissible to let the Physiological Theatre for public meetings, but this can hardly have been the reason on the present occasion, as the Society, under whose auspices the meeting was held, is said to have paid the School only half-a-crown for the evening.

It may be argued that there is a precedent, as a candidate for L.C.C. honours held a meeting in the Physiological Theatre a few years ago. But the candidate was a Guy's man and the meeting was a private one for Guy's men only; moreover the Chairman, Dr. Pembrey, was careful to direct the discussion into physiological channels, the relative merits of breast and cow's milk being the chief topic. On the present occasion the Society concerned has no connection whatever with Guy's, the chief speakers were total strangers to the Hospital, and the discussion had not the remotest bearing on medicine. Whatever may be our opinions on the question of female suffrage, such an unwarrantable invasion of the Medical School can no more be regarded as justifiable than the suffragette invasions of the House of Commons.—Yours truly,

A GUY'S MAN.

Pass List.

Conjoint Board.

FIRST EXAMINATION, OCTOBER, 1911.

Part IV.—PRACTICAL PHARMACY.

Constant, C. F.	Llarena, E. F.
Keer, K. J. T.	McDermott, B.
Langdon, W. M.	Scott, M.
Lauder, J. L.	

SECOND EXAMINATION, OCTOBER, 1911.

ANATOMY AND PHYSIOLOGY.

Davies, J. E.	McManus, D.
Jones, J. P.	Pickett, L. R.

FINAL EXAMINATION, OCTOBER, 1911.

Ball, J. B., *L.D.S.*	Langdon, W. M.
Blackwood, B.	Lloyd, D. C.
Cane, L. C. W.	Lowe, G. C.
Daw, H.	Munden, M. M.
Hance, J. B.	Parmiter, B. R.
Hopkins, H. L.	Symns, J. L. M.
Jap-Ah-Chit.	Worster-Drought, C.
Lacey, G. E. W.	

University of London.

THIRD (M.B., B.S.) EXAMINATION FOR MEDICAL DEGREES, OCTOBER, 1911.

HONOURS.

Schlesinger, E. G., *B.Sc.*: Distinguished in Medicine.

PASS.

Blake, G. A.	McDougall, J. T. M.
Cook, F., *B.Sc.*	Marshall, G.
Hopkins, H. L.	Mitchell, D. A., Surgeon R.N.
Jones, T. L.	

SUPPLEMENTARY PASS LIST.

Group I.

Glendining, V.	Parmiter, B. R.
Killpack, C. D.	Sharp, N. A. D.

Group II.

Adams, M. M.	Dunning, J. B.
Campain, J. H.	Haycraft, G. F.

Royal College of Surgeons of England.

DIPLOMA OF FELLOW.

FIRST PROFESSIONAL EXAMINATION, NOVEMBER, 1911.

PASS LIST.

Perceval, J. L. | Rice, H. G.

LICENCE IN DENTAL SURGERY.

FIRST PROFESSIONAL EXAMINATION, NOVEMBER, 1911.

PASS LIST.

*§Adams, S.	Isaacs, B.
Alabone, L.	Johnson, E. E.
Barber, A. J.	†Machin, L.
Brown, A. A.	Marston, A. D.
Bulleid, W. A.	Millett, H.
Coffin, S. W.	Morrell, F. H.
Cohen, L. C.	†Neal, F. J.
Cutts, G. L.	*§Pemberton, G. L.
Densham, A. T.	Rix, R. H.
*§Easton, W. A.	Rook, A. F.
†Edwards, H. J.	Rycroft, E. C.
Edwards, C. H.	*§Spong, R. W.
*Garrard, J. L.	†Stevens, S.
*§Glover, W. H.	Thomas, C. E.
Gordon, W. H. C.	*§Windermer, L. D.

* Mechanical Dentistry only.
† Dental Metallurgy only.
§ Denotes completion of examination.

FINAL EXAMINATION FOR THE LICENCE IN DENTAL SURGERY.

Parts I. and II.

*V. E. D. Bergh.	*I. G. Samuels.
*H. L. Meyer.	*W. C. Wade.
*P. J. Peatfield.	*C. T. Watson.
*T. R. Trounce.	

Part I. only.

H. L. Bailey.	H. E. Shepherd.
S. W. Bevis.	W. S. Stranach.
J. S. Cocks.	H. O. Salt.
H. O. Dumayne.	R. D. Tanner.
A. J. Percy.	N. H. S. Warner.

Part II. only.

*E. W. Bacon.	*R. Neft.
*E. R. Bailey.	*J. F. Patel.
*H. J. Burch.	*J. G. Richards.
*A. T. Densham.	*Russell Rodgers.
*H. G. Elliott.	*J. H. Ross.
*R. G. Farrington.	*H. D. Shore.
*W. S. Lakeman.	*D. Wain.
*L. S. Langley.	*F. R. Wallis.

* Denotes completion of examination.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Surgical Applied Anatomy. By Treves & Keith. Sixth edition. (Cassell & Co.) Price 9s.

The demand has been so great and the advances in this direction so marked, that a new edition of this excellent manual has been called for within the year. The use of the X-ray has been indicated in various regions. We should like to point to the old diagram of a so-called Pott's fracture. Surely modern X-ray work has shewn us that a transverse fracture in this position is not the first stage of a Pott's fracture? Is it not always spiral? Mr. Lane's classification of abduction and adduction fractures includes all varieties of fracture around the ankle.

Apart from this question the book is one to be recommended to all surgical and medical students, from the ward clerk to the Surgical Registrar.

A Manual of Surgery. By Rose and Carless. (Bailliere, Tindall & Cox.) 21s.

This, the eighth edition of this most popular work, has been brought thoroughly up to date, both in the matter of text and illustration. Several exceptionally good coloured plates have been added, making the volume quite one of the best illustrated text-books we know. Pathology is clearly and adequately dealt with, and again is made easy of understanding by able and accurate illustrations. Operative technique is considered with the brevity suitable to a student's text-book, and everywhere the principles of treatment are emphasized without the cumbersome addition of details which so successfully confuse the student in most text-books.

This Manual of Surgery can be thoroughly recommended to all students of surgery, and its eighth edition should serve to maintain the position which the book already holds as one of the best and most popular general text-books on the subject. We would congratulate the author in particular on the apt choice of illustrations, which, without exception, are of the highest merit, accuracy and usefulness.

Anæsthesia and Analgesia. By J. E. Mortimer. London Practitioners' Manuals. (The University of London Press, Hodder & Stoughton & Henry Frowde). Price 6s. net.

This is by far the best small book on anæsthetics that we have come across, and if all the London Practitioners' Manuals are equally good, they will form a very useful series. The descriptions of methods

of administration are clear and practical, and supply just what is wanted by the novice. Open ether receives adequate attention, and there is a useful chapter on local analgesia. There is an excellent paragraph on the restraint of struggling patients, which might with advantage be studied by all surgical ward-clerks. A chapter on the medico-legal position of the anæsthetist touches a subject which may become of increasing importance.

We should like to enter a protest against the absurd system of heading every page with the title of the book, and we hope this system will not be adopted in all the London Practitioners' Manuals. Reference to a book is always much easier if the right-hand pages are headed with the name of the chapter.

Practical Anæsthetics. By H. E. G. Boyle, M.R.C.S., L.R.C.P. Oxford Medical Publications. (Hodder & Stoughton & Henry Frowde.) Price 5s. net.

This second edition has been improved by the addition of a chapter on spinal analgesia. The section on open ether has also been re-written, but still does not seem to us quite satisfactory. It may be that in giving open ether every novice has to work out his own salvation; at any rate, we have not yet come across a book which gives him any material help in applying this method. We want some definite information about the character of the respiration and the indication it affords of the patient's condition; we want to see a warning given that there is quite a reasonable possibility of giving an overdose by this method and that it is not the entirely safe procedure in all cases which some people seem to imagine. It is curious, by the way, to find the author of this book referring to the use of morphia and atropine before open ether as a practice advocated by "some writers." Here we have come to regard it as almost an inevitable accompaniment, and perhaps have lost sight of the fact that open ether alone is sometimes a valuable, and always a safer, anæsthetic than the ether-morphia-atropine combination.

Dental Disease in its Relation to General Medicine. By J. F. Colyer, L.R.C.P., M.R.C.S., L.D.S., and Stanley Colyer, M.D. Lond., M.R.C.P., D.P.H. (Longman's.) 4s. 6d. net.

The title of this book explains its object, it being a dental text-book written for medical practitioners. The growing attention paid by medical men to the results of dental disease has rendered the appearance of such a book inevitable. The high professional standing of the authors confers on the book the stamp of authority. It is probable that most medical men will turn first to the later chapters of the book which deal more especially with the relation of oral sepsis to such conditions as lymphadenitis, secondary anæmias, and rheumatoid arthritis, and to the reflex complications caused by dental disease.

These conditions are fully discussed, clinical illustrations being frequently given. At the end of each chapter is a valuable bibliography enabling the reader readily to find the literature of any disease in which he may have a particular interest.

The consideration of the treatment of dental diseases in children will appeal to general practitioners as well as to Medical Officers of Health and others who have to do with the medical inspection of children. A consideration of the results of oral sepsis in its relation to life insurance introduces a topic which we believe is not sufficiently to the fore.

We agree with the authors that persons having marked *pyorrhœa alveolaris* should not be accepted as first-class lives. If we may offer a word of criticism it is that those practical points of dental treatment which are so well understood and taught by our own Assistant Surgeons at Out-Patients are not sufficiently easy to find in this book. A country doctor is frequently confronted by a patient with raging tooth-ache. The question in his mind is whether to insist on the patient waiting until he can have the tooth filled by a dentist or if an extraction is inevitable and should be undertaken at once; in other words, he needs to know the differential diagnosis between acute pulpitis and acute suppurative periodontitis.

We doubt the willingness of a busy practitioner to wade through seventy-one pages of this book to discover this, and would suggest that in a subsequent edition the reader should be directed to the position of this and a few other practical points by means of a note in the preface or introduction.

Dental Anæsthetics. By W. E. Alderson, M.O., and John Bolam, L.D.S. (John Wright & Sons, Ltd.)

This book deals with both general and local anæsthetics; its most useful part is that the drugs which are discussed are carefully considered from the pharmacological point of view, so that after reading the book we are left with a clear impression as to the action of the drugs on the human tissues. The existing text-books on this subject are, however, so many and so excellent that we do not feel that this little book adds very much to our knowledge.

Clinical Surgery by Lockwood. (Frowde, Hodder & Stoughton. 5s.

This, the second edition of Mr. Lockwood's charmingly written little book, has been added to by the addition of chapters headed Clinical Pathology, Salivary Calculi, Fractures of the Patella, Amputations at the Hip and Shoulder, and The Wind after Abdominal Operations. This last chapter is extremely valuable, and with the Introduction to Clinical Surgery alone, makes the book well worth buying. Mr. Lockwood has a peculiar style of writing which to us is singularly attractive, and we hope that yet further chapters will be added in the many future editions which we feel sure will be called for.

Intra-thoracic Malignant Growths.

CLINICAL LECTURE BY DR. G. NEWTON PITT.

GENTLEMEN,—I propose to bring before you this afternoon the question of intrathoracic malignant growths. Although they are not very common, still they occur from time to time, and raise many interesting questions with regard to diagnosis. Although, of course, there is very little to be done in the way of treatment, it is important to realise whether a person has a disease which is going rapidly to prove fatal or only some temporary disturbance which is not likely to be fatal. It is found that on the average rather under 3 per cent. of our inspections present malignant disease in the thorax. Out of 12,000 post-mortems there were 191 cases of malignant disease in the lung, and 106 in which there was a deposit in the pleura. We may take it for granted that where there was deposit in the pleura there was also growth in the lung. On looking at the cases more closely we can divide them into two groups. In the first there are secondary deposits scattered about the lung, which occur accidentally, and do not give characteristic signs, and unless you were aware there was malignant disease elsewhere you would not suspect their presence at all. A nodular growth disseminated through the lung, as in the first specimen I show you, gives no physical signs There may be râles or deficient breath sounds, but this would not suggest malignant disease of the lung were there not evidence of it elsewhere. The two most common seats for primary malignant disease in connection with the lung are the stomach and the breast; and, less frequently, the œsophagus. The second specimen is riddled with minute growths and nodules throughout, which, at the post-mortem examination, suggested at first sight acute tuberculosis. Here, again, you cannot diagnose its presence except by inference. Then, take a disseminated growth of the pleura, like the third specimen. This also will give you no signs of growth in the thorax.

The probability of growth in the thorax when there is malignant disease elsewhere would be shown by the presence of an unusual amount of dyspnœa, with severe, persistent, and troublesome pain, often limited to one nerve or a small area, with a paroxysmal cough, as severe as that of whooping cough, or with œdema of the chest wall or face. Any of these accidental signs would at once make you suspect, if there was malignant disease elsewhere, that such disease was also present in the thorax.

Now I want to pass on to the other group of cases which are more often spoken of as mediastinal tumours. When you examine these cases you find a large number of them grow into the root of the lung and involve the bronchus. During the same period there were 55 cases in which the bronchus was involved. You may divide them into the primary growths of the bronchi, of which there were 7; primary growths of the glands, of which there were 26; secondary deposits in the bronchial glands, of which there were 6; and epithelioma of the œsophagus, of which there were 16. The majority of the cases of malignant disease of the œsophagus die with pulmonary lesions. The growth often spreads to the bronchus or trachea and erodes it, and sets up a septic broncho-pneumonia, and often gangrene of the lung. A typical case of epithelioma of the œsophagus occurred recently in a man, aged 35, who had septic broncho-pneumonia of the right lung, with deficient entry of air on that side. Post-mortem, there was an epithelioma invading the right bronchus, and a large gangrenous cavity in the base of the lung. As an example of the cases which can only be diagnosed by inference, I may refer to a woman, aged 35, who had had her right breast removed for a rapidly-growing carcinoma in December last. She had not noticed anything wrong with her breast until a week previously, although, of course, changes had been going on, no doubt, for some time. In May of this year it was noticed that she was losing flesh, and had severe pain in the right chest, together with dyspnœa when she spoke or exerted herself in the slightest. I noted a rub in the right axilla and an almost complete absence of breath sounds on that side in front in the lower part. The operation scar was healthy, and there was no evidence of secondary deposit elsewhere. An enlarged gland was palpable above the clavicle, and three inches below the ribs was a distinctly tender spot. She had loss of appetite and abdominal pain. She had not even thought it necessary to consult a doctor, and resented medical interference. Yet it was clear she was very ill, and she died in less than a fortnight from that date. A secondary malignant growth was found pressing on the root of the right lung, with secondary deposits in the liver. If

we had not known she had had her breast removed, the evidence of growth was not very striking.

Primary Growths in the Bronchi.—The growth is always a columnar-celled carcinoma, and at least four-fifths of the cases of primary cancer of the lung start in the bronchus. Malignant disease involves the bronchi equally on the right and the left sides. Most of the patients with primary malignant disease of the lung come under observation on account of pleuritic effusion. They may require to be tapped more than once. In half the cases, gangrene of the lung develops, and in one of the cases the patient expectorated a small nodule of growth about half an inch long, which the microscope showed to be a columnar-celled epithelioma. These cases of primary growth are rare compared with those which commence in the bronchial glands, which we will soon discuss more particularly.

The cases with secondary deposits did not differ in their symptoms from those in which the growth was primary, except in the presence of growth in a distant part.

A typical example was that of a man, aged 57, who came on the 27th of September of this year with a history that he had been losing weight during the summer, though apparently he was well at the beginning of August. He woke up one night with a choking sensation with a difficulty of breathing; and from that time he developed increasing shortness of breath on the slightest exertion. Within a short time this was followed by a very violent cough, which recurred for two or three weeks, and was so intensely violent as to cause unconsciousness more than once. The dyspnœa steadily increased. During September he had some expectoration, but it never exceeded half an ounce in the day; it was blood-stained. During the past three weeks he has had orthopnœa, which has prevented him from going to bed or lying down. As long as he kept quiet he was not in much pain, and the cough was less severe, but on the slightest exertion he felt ill; his feet have recently been swollen. Immediately previous to this he had presented a rapidly-growing mass of glands above the right clavicle; they were fixed and nodular, not tender, and the mass extended into the thorax. The veins over this region were dilated; there was some puffiness on the right side of the face. Over his chest in front, as far down as the fourth space, the note was absolutely dull, with absence of breath sounds and no conduction of voice sound. Below that, also, the note was dull, but by using auditory percussion, that is to say, percussing while listening with the stethoscope, we could make out a difference in the two dulnesses, that below being due to fluid, that above to growth. In the lower part behind his voice sounds were absent. The chest was resonant in the upper part, but there was complete dulness below the seventh rib. It was clear, then, that he had a malignant growth involving the upper part of the right lobe of the lung, probably starting in the bronchus, with an acute effusion of fluid into the pleura. The gland behind the left sterno-mastoid was invaded. The œdema rapidly increased, and the dyspnœa was intense. He finally died of asphyxia in about ten minutes. The growth had involved the upper lobe of the right lung and had also interfered with the vascular supply; it finally caused a fatal œdema of the larynx in addition to his other troubles.

Another example is that of a woman, aged 22, who had had intense pain in her left chest, which was dull on percussion. There was no tactile or vocal fremitus, no voice nor breath sounds. Her dyspnœa was so severe that she was aspirated at once on admission, and 21 oz. of turbid fluid were taken from the left chest. On the 19th, 4 oz. were taken from the pericardium, the chest over which was very tender. Again fluid was withdrawn, and while an attempt was being made to drain the chest shortly afterwards, she died. Sarcomatous growth was found involving the left bronchus and glands at the root of the lung; there was necrotic bronchopneumonia of the lower lobe, together with an empyema. Such is a typical example of the changes which develop in the lung when the bronchus has been compressed by malignant disease.

Now to run through some of the more important points. I have pointed out that the growth may start with equal frequency in either lung. It is found, however, that women seem to be affected twice as often as men, and that it is equally common for each decennial period, between the ages of 20 and 60. I would draw attention to the great frequency with which these growths give rise to pleuritic effusion. More than half of them develop gangrene. Pleuritic effusion is an early sign in involvement of the bronchus, giving rise to collapse of the lung and dulness, producing signs which obscure those due to the primary growth. As

a rule, the case comes under observation as one of pleuritic effusion, and the presence of a growth is not obvious until you come to investigate it minutely. The next thing is that in many of them the pulmonary artery, as well as the bronchus, is involved. Here is a specimen of a sarcoma of lung which occluded the pulmonary artery as well as the bronchus, with the result that necrotic changes occurred in the lung, and gangrene developed. So an important point is the great frequency with which gangrene develops in association with pressure on the pulmonary artery when the bronchus is also involved. Now I want to contrast these with the cases of thoracic aneurysm pressing on the bronchus which give rise to fibroid changes and bronchiectasis, but comparatively rarely to gangrene. In only a small proportion of cases of growths do definitely fibroid changes result, partly because the process takes place so quickly as to prove fatal before fibroid changes can occur. In some cases you will find bronchiectasis is present, namely, in about one-third of the cases. In a good number of them also there is complete occlusion of the lymphatics at the root of the lung, so that there is a damming up of the lung contents, with an increase in the secretion in the bronchi, and consequently an acceleration of the degenerative changes which follow when the bronchus is involved.

To pass on to the general symptoms. The first is the alteration in the shape of the chest. Some of these masses of growth are enormous; so the size of the chest is enlarged and it bulges. Measurements may show a marked difference on the two sides. Some of the cases which compress the bronchus commence with lung collapse, the lung shrivelling up. In one case which had lasted over four years there was a growth at the root of the lung, and the left lung was reduced to a small mass seven inches long and only one inch wide, consisting of a growth in the neighbourhood of the distended pulmonary cavities.

Next, with regard to dulness. This may vary according to the side and the size of the tumour. Many of them commence as masses in the mediastinum, and then there may be an area of dulness between the scapulæ, and sometimes in front behind the sternum. Sooner or later there is dulness over the lung itself. But what I want particularly to emphasise is that the greater part of the dulness is much less likely to be due to the growth itself than to the effusion of fluid. A massive growth may itself be a cause of dulness. Most of the cases of growth spreading to the root of the lung involve one lung more than the other. It is particularly at the root of the lung that the process starts, and hence the dulness due to the growth itself may not be a striking feature.

Now as to the signs which result from compression of the trachea and bronchus. When compression of the trachea takes place there is stridor. When compression of the bronchus occurs, if it is not near the bifurcation of the trachea, stridor is not at all marked except on exertion, and then it may be quite obvious. When a bronchus is compressed, the usual result, if the compression is complete or if the breathing is not very vigorous, is to find collapse of lung, absorption of the air through the blood vessels, and the gradual development of a fibroid change with bronchiectasis. Such a change takes many months to accomplish. Occasionally in the early stage, however, when the compression of the bronchus is only partial and the respiration vigorous, the lung may become over distended, but only for a time. Even when a bronchus is compressed the secretion of the mucous glands continues, and the bronchus becomes distended, just as the gall bladder does when the bile duct is obstructed. This mucus, unable to escape, is, with each vigorous inspiration and opening up of the lung, sucked back into the alveoli, blocks them up, and finally leads to the development of fibroid changes. Defective circulation acts in the same way. The mechanism which produces distention of the bronchi is complex, but it is mainly due to the secretion being under tension, to the digestive changes, resulting from the infective nature of the secretion, softening and destroying the wall of the bronchus, and to the effect of inspiration on a fibroid lung unable to expand freely. You will find that malignant growth, when it presses on a blood vessel, is very apt to produce thrombosis in a vein, but rarely in an artery. The consequence is that with a thoracic growth you may find evidence of occlusion of the superior vena cava or innominate veins, œdema of the chest wall, or puffiness of the face and arms; and when thrombosis has taken place there may be a development of tortuous veins on the surface of the chest showing a collateral circulation. As the result of interference with the circulation to the head, giddiness, headache, cyanosis, and, not infrequently, epistaxis, result.

The next group of symptoms are due to pressure on the nerves, and may be all import-

ant in the diagnosis. Pressure on the pneumogastric will set up an intense dyspnœa, pressure on the recurrent laryngeal will cause an alteration in the quality of the voice, with paralysis of the corresponding vocal cord in the middle line, which can be detected by means of the laryngoscope.

The patients, not infrequently, have been under treatment for rheumatism or neuralgia, but the pain persists and fails to yield to treatment. It may occur along the back, shoulders, or ribs, and often radiates down the arm. It is sharp, far more distressing and persistent than the pain of pleurisy. Sometimes the nerves are tender to pressure; at others there are localised patches of tenderness in the chest wall. The pain continues at night, and tends to keep the patient awake. A patient with malignant disease of the chest is usually intensely miserable.

Where there is interference with the circulation of the pleura, fluid is not infrequently rapidly poured out into the cavity, and not infrequently it may become necessary to tap the chest repeatedly. In cases where the dyspnœa is due to pressure on the bronchus, removal of the fluid will give little or no relief. Enlargement of glands, particularly those behind the sterno-mastoid, should always be looked for, as well as evidences of distant growth.

The cough is paroxysmal and severe, and is more intense and troublesome than in any other condition, except, perhaps, in whooping cough. Frequently it is purposeless. In course of time expectoration begins to appear; at first there is muco-purulent secretion, but not infrequently there is what is called currant-jelly expectoration, that is to say, a gelatinous blood-stained expectoration containing altered blood. In bronchiectatic conditions there is a large amount of expectoration, and not infrequently it becomes foul, when gangrene develops.

In cases where the growth interferes with the pericardium, so that there is an acute effusion, there is a most agonising pain, referred to the abdomen and epigastrium, which may be regarded as due to peritonitis. Pleuritic effusion, by itself, seldom leads to severe dyspnœa. If the effusion is acute, there is some, but it is rarely intense. If there should be intense dyspnœa, it generally shows there is some complication, such as tuberculous mischief in the lung. The dyspnœa of malignant disease is sometimes a most striking symptom, and the cough and dyspnœa are especially marked when the mediastinum is involved. They are mainly due to pressure on the bronchus and trachea, both these parts, especially near the bifurcation, are very sensitive to pressure. The dyspnœa may be so intense as to prevent the patient lying down; often the only comfortable positions are leaning forward, or lying on the face, and talking or the slightest exertion will increase the trouble. In many cases the rate of respiration is increased. The occurrence of stridor usually means interference with the trachea. You but rarely find it when the mischief is limited to a bronchus. Pressure on the adjacent organs leads to œdema of the chest wall or face, and the glands are often to be noticed enlarged, not only the one behind the sterno-mastoid, but also sometimes those in the axilla, or even those in the groin. There will be alterations in the voice. Patients with malignant growth at the root of the lung usually prefer to lie on the affected side. It is remarkable how little interference with general health there seems to be at first; there may be no cachexia until later on in the progress. When there is rapid growth, pyrexia occurs. Sometimes the temperature is due to absorption from the bronchiectatic cavities, and to the other secondary changes due to pressure on the bronchus.

As to duration, some of these cases apparently, have had symptoms for a considerable time. In one case the patient had had symptoms for four years, which is exceptional, but it is common for symptoms to have dated back a year. There are cases which run a very acute course, and may prove fatal within two months of the onset of the first symptom.

The final condition of some of these patients is most distressing with dyspnœa, asphyxia, œdema, cyanosis, cough, and intense pain; in a few the symptoms are latent.

Let us now discuss the diagnosis. X-rays enable us to be more certain about the diagnosis of obscure chest conditions than was the case formerly; by this means we may differentiate a new growth from aneurysm or from the presence of fluid. This is particularly so when you take a view of the chest at an angle of 45 degrees and examine the posterior mediastinum, which normally shows a clear space between the aorta and the spine. A mediastinal growth will often give a shadow there, and so may quite an early deposit in the glands.

You have particularly to distinguish a growth from rheumatism and neuralgia, which you certainly ought to do when there are any physical signs of disease present in the chest. Your difficulty will rather be in distinguishing it from *aneurysm*, *pleuritic effusion*, *solid lung*, and *phthisis*.

A *thoracic aneurysm* compresses the left bronchus at least six times as often as the right. There is no pleuritic effusion with aneurysm, and there are the other physical signs of a pulsating tumour, with alterations in the heart sounds, and its situation is different. It occurs in connection with syphilis, and in men rather than in women. It may also last much longer than does malignant growth.

The first distinction from *pleuritic effusion* is its distribution. It is rare for growth to be limited to the base; it is more frequently at the root of the lung or at the apex. You frequently find a dull area at the upper part and a more resonant area below, which would be against an effusion of fluid.

The physical signs of growth are generally said to be those of fluid; there is dulness and absence of breath sounds, with diminished voice sounds. The reason is that in most cases the bronchus is blocked, and so the sounds of respiration are cut off, but when the bronchus is quite free, the signs are not those of fluid; there may then be either tubular or diminished breathing, with or without adventitious sounds.

When you aspirate the chest and examine the fluid, there are two characteristic features. First of all, two-thirds of the effusions in connection with malignant disease are hæmorrhagic. In others there is serious effusion. By hæmorrhagic effusion one does not mean merely one which shows a few red cells under the microscope, because most fluid drawn off by means of an aspirator shows some red cells. If you count the cells, you find that as soon as you get five or six thousand red cells to the c.mm. the effusion is hæmorrhagic. If you centrifugalize it, when it is due to malignant disease you will often find that the serum is stained, as hæmolysis has occurred; whereas, this does not, as a rule, occur in pleuritic effusion due to other causes. So disintegration of red cells will be a strong indication that the fluid is connected with malignant disease. Of course, there are hæmorrhagic effusions in connection with other conditions, such as tubercle, and, though rarely, chronic Bright's disease, but the hæmolysis of the effusion is all-important. Next examine the other cells which are present in the fluid. You may divide the cells found in connection with pleuritic effusion into three groups: (1) lymphocytes; (2) polymorphonuclear cells, and (3) those which form large irregular plaques.

First of all as to the lymphocytes, those cases in which the cells are mainly lymphocytes are generally tuberculous. Those in which they are polymorphic are pneumococcal, typhoidal, streptococcal, or due to other infective processes. And the remaining group is the one which occurs in connection with hydrothorax, or heart disease, and in connection with malignant disease. The cells which you particularly find in connection with malignant disease are plaques of cells, which very often have several nuclei which stain deeply. The cells are large, they vary in size, are very irregular, and very often show highly refractile granules. Besides these, there are single cells which present similar irregular varying characters. In a considerable number of cases of malignant disease it is possible from a simple examination of the cells in the fluid to conclude that you are dealing with malignancy.

The remaining group to be distinguished are the *tuberculous* ones. When a malignant growth presses on a bronchus, with the rapid formation of a cavity, setting up râles, expectoration, and hæmoptysis, you are generally able to come to a correct conclusion. On the one hand, there are no tubercle bacilli, whereas it is an unusual thing in phthisis not to be able to find tubercle bacilli when the expectoration is profuse; and you also find dilated veins, or œdema, or some other evidence which will put you on the track of a growth, as opposed to tubercle, and an important point is the much more severe pain which is generally present.

Dental News.

THE monthly meeting of the Dental Society was held in Class Room No. 2 on Friday, November 17th. The meeting was again well attended. The minutes of the previous meeting were read and confirmed.

A committee was then formed for the purpose of undertaking some research work. After a ballot the following were elected to form the committee:—The President, Messrs. Cox, Stranach, Neely, Tipper, and Henderson.

Casual communications were then shown by Mr. E. R. Williams.

The next business was the reading of a paper by Mr. R. D. Tanner, entitled, "Some factors in the Prevention of Dental Caries." This proved a most interesting and instructive paper. Mr. Tanner is to be congratulated on having covered so big a subject in a short paper to such advantage. Several members spoke to the paper.

The meeting then rose, at 5.45.

We congratulate those who were successful in the recent examinations. Again Guy's students have upheld the honour of the hospital, our percentage of passes being high. Particularly is this so in the First Professional Examination.

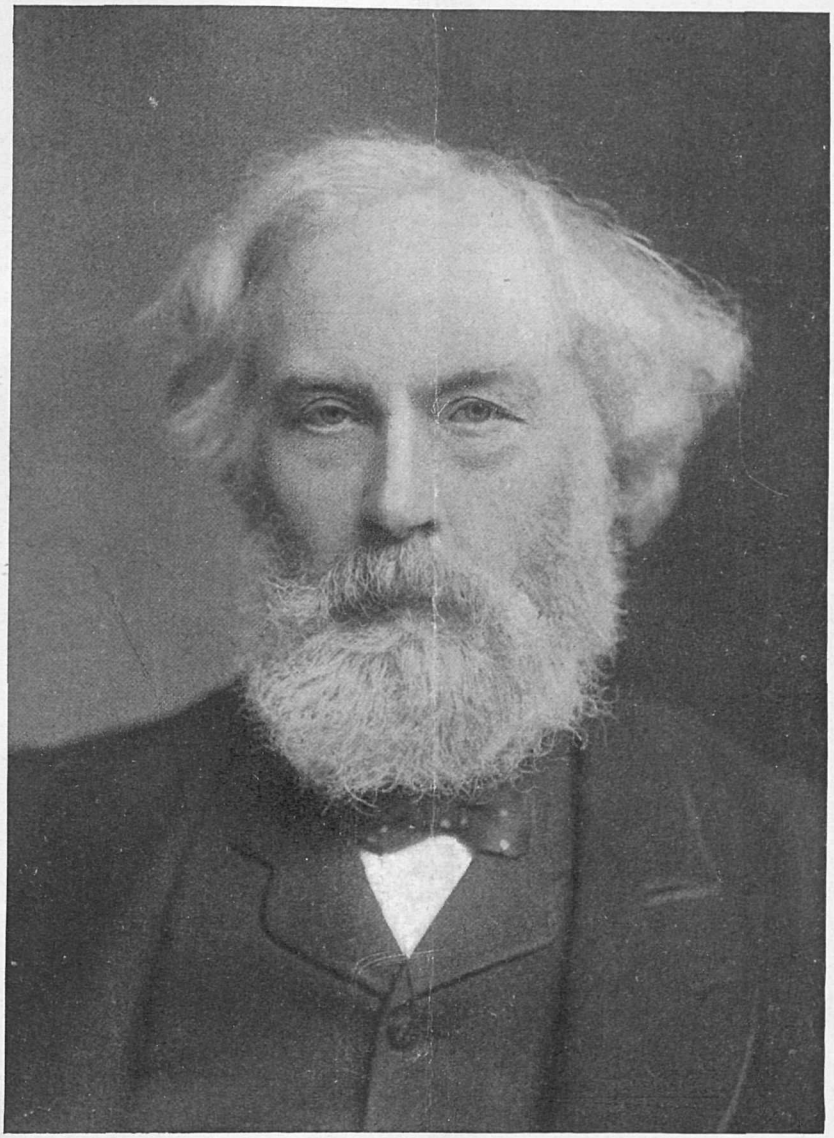
The examination for the Newland-Pedley Prize takes place December 4th–11th. We hear competition is to be very keen this year. Perhaps the new regulations appeal more to the students.

Obituary.

SAMUEL WILKS.

SAMUEL WILKS was born on June 2nd, 1824, at Camberwell. He was the second son of Joseph Barber Wilks, a cashier at the East India House, where many of his ancestors had been before him. Schooling began with Samuel Wilks by his going to a dame's school next door to his home, then he went to a boy's school at Camberwell Green, and at the age of eleven he was sent to the Rev. Dr. Spyers at Wallop, between Andover and Salisbury. When in 1836 Dr. Spyers was appointed head master of Aldenham, Wilks followed him there. He remained at Aldenham three years. In 1839 he was at University College School for one year. In 1840 he was apprenticed to Mr. Richard Prior, the family doctor at Newington near Camberwell, and, as was usual then, during his first year, he made up medicines, vaccinated, bled and drew teeth. In 1841 he entered at Guy's, the first lectures he attended were those of Mr. Bransby Cooper, on anatomy. In 1847 he became a member of the Royal College of Surgeons, in 1848 he took the M.B., and in 1850 the M.D. London. He dressed for Mr. Aston Key. In 1847 Mr. Prior died. In 1854 Wilks married Mrs. Prior, who was the daughter of Henry Mockett, of Seaford, Sussex. He had no children, but, as many of us remember, one of his stepdaughters, Miss Prior, to whom he was much attached, kept house for him till her death a few years ago. In 1851 he became a member of the Royal College of Physicians. In 1853 he was made Physician to the Surrey Dispensary. In 1856 he was elected Fellow of the Royal College of Physicians, and Assistant Physician to Guy's Hospital, and in 1867 full physician. In 1864 he was for one year Physician to the Hospital for Women and Children in the Waterloo Road. In this year he served on the Venereal Commission, and in 1870 on the Royal Commission which treated of the same subject. In this year he obtained his F.R.S. In 1879 he was appointed Physician to the Duke and Duchess of Connaught, and in 1884 was made an LL.D. of Edinburgh. In 1885 he retired from the Staff. He was then 61; the usual retiring age is 60, but, owing to the many deaths that had recently occurred among the physicians at Guy's, Wilks was asked by the Governors to stay a year longer. On his retirement he became Consulting Physician; he used to say the curious feature of this office was that he was never consulted, but he was often to be seen about the Hospital, frequenting the part in which he had made himself most famous, namely, the post-mortem room. He continued to hold the post of Honorary President of the Physical Society until his death, and for many years presided at the October meeting. He was last present at the meeting held in October, 1910. Like Sir William Gull, he was elected a Governor of the Hospital. When in 1893 Sir Russell Reynolds became President of the Royal College of Physicians, Wilks was defeated by only three votes, but he was easily elected at the next vacancy in 1896. Many felt strongly that it would confer great honour on the College for a man of Wilks' distinction to be its President, but it was very difficult to persuade him to stand. One of his colleagues talked to him from four o'clock till ten one Sunday to try and persuade him, but he refused and cut short the discussion by going to bed; however, when the argument was renewed the next afternoon he gave way. In 1897 he was created a baronet and Physician Extraordinary to Queen Victoria. He leaves no heir. He retired from the presidency of the College in 1899. In 1901 he retired from practice, left his house, 74, Grosvenor Street, where he had been many years, and went to live at 8, Prince Arthur's Road, Hampstead. Here his activities continued, for he became president of the Hampstead Scientific Society and frequently wrote to the papers on subjects with which he had been occupied at some period or another.

It was greatly owing to his initiative that the observatory in connection with the Society was built. He soon made many friends in Hampstead, and his newly-made friends came to love him as had those in London itself. The affectionate companionship of his neighbours, Mrs. and Miss Martelli, next door on the one side of him, and Dr. and Mrs. Bashford, on the other, helped to render life pleasant for him. His passion for observation never left him. He became much interested in the habits of the burrowing bees on Hampstead Heath and in astronomy. In May last complete paraplegia set in, and from then to his death, on November 8th, he was confined to bed. He bore this illness, and, indeed, all illnesses, with extraordinary bravery, never uttering one single word of complaint. About 2 a.m. on November 6th he became unconscious, and he died about forty-eight hours later. One of his most intimate Hampstead friends was Dr. Edward Jessop, who, during the last ten years, looked after him devotedly. The funeral took place at



Samuel Wilks

Sir SAMUEL WILKS, Bart., M.D., LL.D., F.R.S., F.R.C.P.

Born 1824, Died 1911.

the Hampstead Parish Church on November 11th, and was attended by the President and Censors of the Royal College of Physicians and the Mayor of Hampstead. The Royal Society, the Council of the College of Surgeons, the Royal Society of Medicine, the Governors of Guy's Hospital, the Consulting and Active Staff of Guy's, and the Guy's Physical Society were all represented.

Wilks had a genius for observation and a great admiration for those who observed accurately. Ever since the writer knew him a large portrait of Darwin hung in his room. Fortunately he followed at Guy's closely upon those master observers, Bright and Addison, and their example stimulated him. Then, too, he began his work at a time when doctors were content with vague words to explain disease, and rarely took the trouble to make post-mortem examinations. Wilks saw that the whole field of morbid anatomy lay before him, and he harvested in it with rare enthusiasm. It was his example that taught the profession that morbid anatomy was the basis of medicine; the hundreds of post-mortem rooms in the country, and the thousands of autopsies that are made annually, have all followed from his teaching. To say this is to show what medicine owes to Wilks. In 1859 his "Pathological Anatomy" appeared, and he was able to say that every fact therein mentioned had been observed by him. Two editions have appeared since. This book has become a classic, and so it will always remain. Many a time it has happened that one of us has thought he has found a new fact in morbid anatomy; he has gone to the "Pathological Anatomy," only to find that Wilks had noticed it before him.

Undoubtedly the most important of Wilks' discoveries was that syphilis can affect internal organs. Every beginner at medicine must recognize the significance of this discovery, which was announced in the Guy's Hospital Reports for 1863 in a paper entitled, "On Syphilitic Affections of Internal Organs." Of it Wilks himself wrote, "I regard this as the most noteworthy and original article it has been my good fortune to write." In this paper will be found an account of syphilitic affections of the liver, spleen, lungs, bronchi, heart, and nervous system, and he points out that congenital, as well as acquired, syphilis may affect the viscera. Wilks' next most important observations were those which he made on Bright's disease, Addison's disease, Hodgkin's Disease, and pernicious anæmia, for it was he who, by several papers and much hard work, taught the profession what each of these is. He discovered Hodgkin's disease, but then found that Hodgkin had previously described some cases. Wilks, therefore, with that honesty which was so characteristic of him, wrote another paper on the subject, pointing this out and naming the condition after Hodgkin. He often reminded us that Bright was the first to form the conception of what is now known as Jacksonian epilepsy. In 1870 there appeared in the Guy's Reports an article by Wilks on "Arterial Pyæmia," or, as we now call it, Malignant Endocarditis, and he was the first to make the existence of this disease known. He also taught us that alcohol will cause paraplegia, although it was left to subsequent pathologists to show that this depended on neuritis. It was he who directed our attention to the lines on the nails that follow severe illness, to lineæ atrophicæ, and to verrucæ necrogenicæ. His powers of observation were by no means confined to morbid anatomy. He was a brilliant clinical physician, with a great aptitude for quickly seeing the relevant facts in any particular case, so that those whose minds worked more slowly were astonished at his rapid and accurate diagnosis. During the later period of his physiciancy at Guy's he became interested in the nervous system, and published that charming book, "Diseases of the Nervous System." It is not surprising that in 1891 he was awarded the Moxon Gold Medal, which is given to "the person who shall be deemed to have most distinguished himself by observation and research in clinical medicine." The titles of a few of his papers will show how wide was his range. For example, we have "History of my Parrot," "Sleep Walking and Hypnotism," "Hunter and Shelley," "The Origin of Music," "The Nature of Dreams," "The Functions and Powers of the Medical Council," "Overwork," "Temperaments," "Oliver Wendell Holmes," "Perils of the Sea Shore," "The Relation of Man to Animals," "Spirals," "Ambidextry," "The Month of May Unlucky for Marriage."

Wilks was a great personality. His handsome face, his fine head, his beautiful white hair, and his bright eyes arrested everyone's attention. Then when you came to talk to him, his honesty, his scorn of humbug and mere money-making, his fair appreciation of good work even when it lay outside subjects with which he was acquainted, his enthusiasm for the advancement of knowledge, and the way in which he made it clear that medicine at its best was a high intellectual pursuit compelled you to love him at once. His conversation

always took you out of the meannesses of life, and you left him filled with high aspirations. He never sought popularity, nevertheless he was loved as few have been and his old pupils usually referred to him by some word of endearment. Those who remember the complimentary dinner given to him in 1897 on the occasion of his being made a baronet will recall the extraordinary enthusiasm with which he was received. About three hundred old Guy's men came from all parts of the country. The Treasurer was in the chair. A few minutes talk with those who had come showed that it was their affection and reverence for the guest of the evening that had brought them to the dinner.

Wilks was a great talker, he never lectured the students either in the wards or at lectures, he just talked to them. In his teaching he made no attempt to fill you with new facts, but he led you to think properly and prevented your imagining you understood a subject when really you did not. Not only medicine but any scientific or literary subject interested him, he had to an extraordinary degree the faculty of always exercising his mind in something, and he was never bored. On one occasion he talked to the writer about a subject which was interesting him much for over half an hour continuously and then said humorously: "You have told me no news: I suppose you will say it is because I have not given you a chance." His amusing humour often took the form of a slightly ironical caustic remark directed against anyone whom he thought in some degree contemptible. He was very fond of good literature and knew his Shakespeare, as the many quotations in his Diseases of the Nervous System show. At no period in his life was this marvellous power of occupying his intellect more shown than during his last few years. To many the later years of a long life are pathetically tedious, not so with Wilks; with a fortitude that was heroic he put all his sufferings aside, read, talked, thought and wrote, and never alluded to his troubles. While he lay in bed paralysed he completed, and, with the help of his old friend, Sir Horatio Donkin, saw through the press his recently-published "Biographical Reminiscences."

Everything connected with Guy's was very dear to him, he was almost passionately devoted to the Hospital as his many letters to the GAZETTE have shown. It was to him a labour of love to write the "History of Guy's Hospital," a book which all Guy's men can read over and over again with pleasure. Few, if any, have, by their influence, more thoroughly knit us together into a body proud of Guy's and determined to do all that lies in our power to uphold its reputation; he was very jealous of the honour of his School, and always saw that full justice was done to all who have worked in it. By the death of Samuel Wilks Guy's has lost one of its greatest ornaments, a man who, as an original observer, a physician and a teacher in the highest sense, was on an equal plane with the most distinguished of his predecessors, and who as an inspirer of all that is best in a man and as a teacher who was adored by hundreds of Guy's men has had no equal.

A Personal Note.

In some ways it is better to express at once one's feelings on the loss of a dear friend though the sorrow of the parting must to some extent colour the expression.

I have been asked to write something about the late Sir Samuel Wilks. I suppose I am one of the oldest Guy's men living in London who have known him for very nearly fifty years, and from the earliest day to the last Wilks has always been the same, a man of transparent honesty who hated shams and believed in observation and simple recording of facts. Though never in any way a demonstrative man, there was a magnetism about him which was very attractive. He was the students' friend, but there was no sinking down to a lower level. He raised them by their admiration of him and his qualities, and it was a stimulating thing for his colleagues to notice the warmth with which he was received even when he had left the Hospital as an active member of the Staff.

In the old days, when he lived close to the Hospital, very few days passed without his visiting the wards, where he was welcomed by surgeons or physicians alike. He might be seen in the operating wards, as he told Hilton, in those bad old days of pyæmia, to see what the surgeons were getting ready for him. His quaint remarks about patients and their ways were always noteworthy; his description of the chlorotic girl who always wore green ribbons, or the old-fashioned child who, he was sure, slept with his grandmother.

He was not a sceptic in medical treatment, but he was strongly opposed to definite treatment on principles which had not been established. Thus, that rheumatic fever was due to acidity and was to be counteracted by alkalies did not appeal to him, though, I admit, it startled me when I heard him suggest that all his cases of rheumatic fever were to have mineral acids.

His teaching was always suggestive, and was followed by the senior men with the utmost confidence. He was probably consulted more by Guy's men about their own ailments than about that of their patients. He took little or no interest in physical exercise, and I never remember seeing him at a football match or any similar amusement of the students. No one who has seen him in his social and professional life left him without feeling that he was a clear and honest minded man. His devotion to Guy's Hospital and to all connected with it was almost a passion, and now he has left; but he leaves a memory which will remain as long as any of us, his old friends and colleagues, live.

G. H. SAVAGE.

A former Editor of the GAZETTE writes :—

To me, as to some of my predecessors, the GAZETTE was the means of introduction to Sir Samuel Wilks. He took a keen interest in the little paper, and now and then wrote a short note, generally adding modestly in a postscript, "If you think this is worthy of notice, you may perhaps find a corner for it." Usually the notes contained valuable information which was very helpful for expanding "Passim." Later on a subject cropped up in which Sir Samuel took a great interest—the connection of Keats with Guy's—and I received a note inviting me to call and see him "whenever I was going for a walk on the Heath." I took advantage of that invitation, and now regret very much that I did not go more than a few times. The old veteran looked so vigorous, so full of life and spirits, that it was almost impossible to think that he had half a century of work behind him and was still a worker.

My notes of the first interview I had with him, I find, tell me that we discussed Keats for the best part of half an hour. He was acquainted with the late Sir Charles Dilke's valuable collection of relics, and had personally inspected them, but told me he had not visited the grave in Rome. On the history of Guy's he was, of course, an authority, and he had numerous incidents to record. Some of these, he said, he had placed on record, and they would be found among his papers, but he had so little time, for he was writing a small essay on the advance of medicine in relation to the special work accomplished at Guy's. This has since appeared in the little volume of reminiscences published by Messrs. Adlard, but it is to be hoped that his further reminiscences will be collected and printed at some future period.

From Keats we wandered off into his own history. He seemed to like to tell a young Guy's man of things that had a present interest. For everything almost he had an apt illustration from the past. Incidentally the question of newspaper scandals cropped up, and he explained how Treasurer Harrison had expressed himself on the question of publicity—"Guy's was a private hospital, and it was nobody's business to interfere." "And," said Sir Samuel, drumming with his fingers on the arm of his big working chair in that half-nervous fashion which was so characteristic of him, "we all bowed the knee to Harrison. There was the nursing business of which, may be, you have heard. We went one day to Guy's, and I saw the Superintendent, who said to me, 'Come along; I'll introduce you to the new Matron.' Mr. Foster went up to his wards and asked for his head nurse: they told him she had gone. He didn't like that a bit. 'That's it, is it?' he called out. 'She's come to teach nursing to *my* nurses.' So we went and waited on the Treasurer. Dr. Lushington, he was a weak man, a feeble man—was put up to speak for us—but the Treasurer turned him round, and poor Lushington couldn't get in a word edgeways. . . . . Of course, the patients really didn't suffer, but I pitied the poor nurses. The Treasurer put in anybody he liked. . . . I remember one was a Dissenter, and there was a great deal of fuss made over it. . . . Once I heard Addison ask Harrison whether there was a good entry of students that term, and Harrison replied bluntly, 'What on earth does it matter to you.' If you go to the rooms of the old Medical Chirurgical—you know the door opposite the entry?—you'll find a most excellent cartoon, by Cruikshank, I think, of King Harrison. That's exactly what he looked like when he had his temper up."

His views on the old Medical Chirurgical itself were strongly expressed. The history of the founding of the Pathological Society is well known to most of us, but it would be interesting to hear Sir Samuel's account of the split between the old society and the founders of the new. "They were a party of cantankerous old women," he said, referring to the Medical Chirurgical. "Addison told me he hated the place—I think he said so somewhere in his lectures. You may try and look up the reference—perhaps I am wrong, for I am speaking only from memory. But I know that we had great difficulty in showing specimens. They said they did not like smelly things brought into the rooms, and that the proper place for these specimens was the post-mortem room. So we decided to found the Pathological Society." He remembered Hodgkin as a "quiet-faced man who never had very much to say for himself, but a very fine man when you came to know him." "It was a great pity they kicked him out," he remarked, "but he never went out of his way to make friends. I don't think he was much liked by the students. His lectures were never very popular, but they contained a large amount of sound information. As a pathologist he was first-rate—first-rate."

I find, on referring to my notes, that we discussed the modern system of medical teaching, which he held was much more practical than that which obtained in his day. He referred to his own preliminary work. "I was never properly taught Latin," he said. "I had to pick it up by myself, just because I liked it. Here,"—

he got up and went to his bookcase, a small but well-filled one that stood behind his chair against the wall, and selected a well-thumbed old copy of Lempriere—"that's a prize I got. I think it's one of the books I value most. I often read in it now. It contains such a lot of interesting notes. Every medical student should read it." There were several other old-fashioned school-books on the shelf, and he picked them up one by one and fingered them lovingly. Then he took up Grenfell and Hunt's little green-cloth-covered pamphlet, and searched in it for a few moments. "Look here—your eyes are better than mine—see if you can get that reference to the physician. You know the Bible passage about a prophet not being honoured in his own country. Yes, well I think this reference is almost better. Have you got it?" I had, and he took the book and went to the window overlooking his little strip of garden, where his favourite titmice nested under his immediate protection, and read out the passage—"Λέγει Ἰησοῦς οὐκ ἔστιν δεκτὸς προφήτης ἐν τῇ πατρίδι αὐτοῦ, οὐδὲ πατρος ποιεί θεραπείας εἰς τοὺς γινώσκοντας αὐτόν."* "You see the word θεραπείας is used," he remarked, handing me the book. "I was very much interested when I saw that. It is so true. One cannot quite see how a prophet, if his words come true, will be rejected by his own people. But a physician! That's nearly always the case. You know it's all the fashion now-a-days to talk about the open-air cure for consumption. Yet we discussed that matter many years ago, and we didn't then think so much about it. I remember when that paper was read how we thought that it was a far-fetched theory. But it has come true, hasn't it?" On the mantelpiece was a small bottle with a specimen in alcohol. When he saw me looking at it, he smiled and handed it down. "It's—now come now, see if you know what it is?" It was a tiny little whitish, crimped up specimen, with some hair on it, and a rather long umbilical cord. "That's a baby kangaroo," he said. "I got it from the Zoo. You see I am interested in natural history, and I like to keep up something. I am a member of the Hampstead Society, and sometimes I send them a paper. They seem to like it, and it is very good for me to keep up my interest. A man must have some hobby." He pointed out the peculiarities of the baby kangaroo, and then talked about his titmice, explaining carefully what sort of titmice they were what they fed on, and what their eggs were like. This brought him to zoology in general, and he told me how he had first met Owen and how Owen had interested him in the Moa. "Come along, and I'll show you something else," and taking my arm he led me into the dining room where hung a large portrait engraving of Darwin, "I think that's the best portrait of him I know. I only met him once. I think it was at the Royal Society. I had been asked to go, and was introduced to him, but he was very quiet, and I didn't talk much with him. All I can remember was that he asked me if I had ever met a remedy for sea-sickness—you know he was a very poor sailor. He looked very ill then, and I recollect telling a friend that night that I thought he was very ill. I never met him again. It's a good portrait, isn't it? I am glad I have it." There was his own portrait and various interesting mementos in the dining room, but he was obviously tired, and I said good-bye. He accompanied me to the doorstep, and told me which corner to take to get to the tube. The next morning he sent me some of his pamphlets and lectures to the Hampstead Society with some remarks penned, in his fine script, on the title page. Accompanying them was a letter in which he stated that he was always pleased to see a Guy's student, and that he hoped that the younger generation of Guy's men would not neglect him. "I shall always be glad to see any of you," he wrote. "I can't come up and see you, you must make some allowance for my age, but when I can I go to the opening meetings of the Pupils' Physical Society . . . . If you want to know anything that I can tell you, write, or better come and ask me." Later on, when a point did crop up on which I wanted some information—I think it was with reference to the removal of Guy's remains—I wrote to him, and by return of post, almost, got his reply, covering two closely written pages, in which he told me that the exact date was recorded on the tomb itself in the crypt. His directions for finding the tomb were no longer good, for the ward entrance was blocked, but a scramble over the Matron's coals brought me to the place and showed me that his information was accurate.

* "Jesus said: A prophet is not accepted in his own country, neither does a physician work cures upon them that know him."—*Logion* 6, ii., 30–35.

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ADDENDUM.

Sir Samuel Wilks states in his "Biographical Reminiscences" that he wrote the following articles:—

Sleep-walking and Hypnotism, *Brain*, no date.

How the Blind Dream, *Brain*, no date.

The Functions and Powers of the Medical Council, *Med. Mag.*, no date.

The Origin of Music, *Med. Mag.*, Jan. No., 1904.

The Nature of Dreams, *Med. Mag.*, 1904.

Temperaments, *Chambers's Journ.*, 1876.

Overwork, *Chambers's Journ.*, 1880.

The Value of Experiments, *Journ. of the Assoc. for Advancement of Science by Research*, 1882.

Perils of the Seashore.

With this last item no date or reference is given. All the above I have been unable to trace or verify. I have recently been told by a friend that Sir Samuel also wrote an article entitled "The Expression of the Eye in relation to Art," which appeared in "The Magazine of Art."

Biographies of Sir Samuel Wilks have appeared in—

The Echo, for May 5th, 1891.

The Provincial Med. Journ., Leicester, 1891, x., 65, with portrait.

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He was also the subject of one of "Spy's" cartoons in *Vanity Fair*, where the title of "Philosophical Pathology" was given him. W. W.

The Differential Diagnosis of Renal Enlargements.

BY HERBERT FRENCH, M.D.

(*Continued from page 491.*)

Sarcoma of the kidney.

This disease is usually primary. Secondary sarcomatous growths are, however, sometimes found in the kidney, and if of the melanotic variety, they may be accompanied by melanuria. The primary disease mostly affects infants and children up to the age of 8 or 10. The tumour may reach an enormous size, and is best described in the words of Fagge: It forms a smooth rounded mass which sometimes reaches an enormous size, weighing ten, twenty, or even thirty pounds, so that at one autopsy it was said that instead of the tumour being removed from the child's body, the body was removed from the tumour. It may be soft and elastic and appear to fluctuate; it may be vascular, and if hæmorrhage occurs into its substance it may suddenly increase in size. The chief symptoms and signs, in addition to the presence of a large, rapidly-growing tumour, are:—rapid and progressive emaciation, anæmia, weakness, pain and hæmaturia.

The urine may not be altered. The quantity may be increased or diminished. The colour is normal, but

if blood is passed, the tint varies according to the amount present. Occasionally pieces of sarcomatous tissue may be found on microscopical examination. Pus is not present unless the condition is complicated by pyelitis, pyonephrosis, or pyelonephroitis. The urea may or may not be diminished. The chlorides and phosphates may be diminished. Albumen may be present; it is usually dependent on the presence of blood.

In a child the presence of a large, rapidly-growing tumour in the abdomen points, as a rule, to sarcoma either of the kidney or of the retroperitoneal glands. The chief points of distinction are:—

1. A retroperitoneal sarcoma is situated more towards the centre of the abdomen than is a sarcoma of the kidney, which is placed laterally and more deeply in the loin.

2. If seen early, the retroperitoneal sarcoma is fixed, whereas a renal sarcoma does not become immoveable till later.

3. Hæmaturia is not associated with retroperitoneal sarcoma unless the kidney has been invaded.

4. If in either case the disease is advanced, and the tumour is very large, a differential diagnosis is practically impossible without laparotomy.

The following case illustrates the difficulty in diagnosis that may arise. It was an example of *ruptured abdominal aneurysm being mistaken for sarcoma of the kidney*.—A male, aged 33 years, an engine driver by trade, was admitted in October for pain in the lower part of the back, lumbar region, groin, and hips. Seven years before admission he contracted syphilis. A year previous to admission he was laid up with a gnawing pain in the lower part of his back for three weeks. He resumed work for six months, but was never free from pain, was then again laid up for three weeks and returned afterwards to work for another three months. He was seen in the Out-Patient Department on September 28th, but nothing abnormal could be felt in his abdomen to account for the pain. He was admitted on October 6th. He was anæmic and rather wasted. He was suffering considerable pain, and could not remain in one position for any length of time. A hard solid tumour, which was slightly movable could be felt in the neighbourhood of the right kidney. On October 14th the tumour was noticed to have increased considerably in size, and the pain had become more intense. The right thigh was flexed. The swelling was thought to be due to perinephritic inflammation.

On October 22nd the tumour was found to be still larger, and an exploratory operation was performed. A soft and easily broken down mass was felt, which was considered to be growth. During the examination there was a large gush of blood. The wound was packed with gauze. On the 24th the wound was dressed, and after the removal of the last sponge there was a sudden gush of about one and a half pints of blood, and he soon became cold, collapsed, and cyanosed; and died.

The post-mortem examination revealed that the right kidney, duodenum, and colon had been displaced forwards, downwards, and inwards by a large tumour occupying the right loin, which proved to be a diffuse aneurysm of the abdominal aorta. It measured ten inches in length, and extended across the spine to the left psoas muscle. Upwards it reached to the body of the 10th dorsal vertebra, and had eroded the bodies of the 11th and 12th dorsal, and 1st, 2nd, and 3rd lumbar vertebræ. It communicated with the aorta by an oval opening $3\frac{3}{4}$ inches in circumference on its posterior surface just at the aortic opening of the diaphragm. It contained 14 oz. of blood clot.

Carcinoma of the kidney may be primary or secondary. Secondary growths rarely give rise to a palpable tumour. Primary carcinoma is twice as frequent in men as in women, and those affected are usually over 45. The most frequent variety is the encephaloid or medullary form which begins in the cortex and is of the consistence of brain matter. Scirrhus is rare, and epithelioma of the renal pelvis associated with the presence of calculi still rarer. The kidney may become considerably enlarged, but it is rarely as large in proportion as in the case of sarcomatous tumours in children. The chief symptoms are pain, hæmaturia, tumour, anæmia, progressive emaciation, and weakness. The amount and character of the pain varies; it may be absent altogether; it may be dull, aching, and continuous in character. It is usually located in the loin and shoots across the abdomen or into the groin and thigh. It rarely causes retraction of the testicle. Attacks of renal colic may be brought about by the passage of clots down the ureter. When dull pain is a marked symptom there is generally a big tumour, the mass of the latter being largely responsible for the dragging pain.

Hæmaturia is more frequent in carcinoma than in sarcoma; it occurs in more than half of the cases. It may be the earliest symptom. It varies in amount, and is not constant. The blood, when it does occur, is intimately mixed with the urine, and yet clots may be passed having the form of the pelvis of the kidney and the ureter.

Osler writes : "It would no doubt be possible for such to form in the hæmaturia from calculus, but I have never met with a case of blood casts of the pelvis and of the ureter, either alone or together, except in cancer."

In addition to the presence of blood in the urine, albumen may be found in proportion to the quantity of blood. Cancer cells may be occasionally recognised microscopically in the sediment. In other respects, viz., quantity, specific gravity, reaction, and colour, the urine may be normal. The tumour is usually smooth and rounded, though it may be lobulated. It varies in consistence. It presents the characteristic signs of a renal enlargement. If very vascular it may pulsate, and a bruit may be heard over it on auscultation.

The weakness, anæmia, and progressive emaciation have a somewhat slower progress than is usual with carcinoma of other organs, for the duration of the disease when the kidney is primarily attacked is from six months to two, three, or four years.

Carcinoma of the kidney is the commonest cause of thrombosis of the renal veins, and the thrombus may spread into the inferior vena cava and lead to œdema or even gangrene of the legs, and dilated superficial abdominal veins. If the thrombus spreads upwards the hepatic veins may become blocked, and ascites follows. Ascites may also be a prominent symptom if there are secondary deposits in the peritoneum. Carcinoma is most likely to be confused with calculus.

1. In both conditions a tumour may be felt, but a tumour due to the presence of renal calculi is very tender on pressure, whereas a tumour due to carcinoma may be only slightly or not at all tender.

2. In cases of calculus, hæmaturia is induced by exercise or jolting movements, and can usually be controlled by rest. Similar conditions in carcinoma have little or no effect in producing or controlling the hæmorrhage.

3. Retraction of the testicle is very rarely present in carcinoma.

4. The sudden appearance of a varicocele in a patient suffering from hæmaturia, pain in the loin, and a renal tumour, would point in all probability to carcinoma as the cause of the enlargement of the kidney.

5. An X-ray examination would show the presence of calculi, but it should be remembered that epithelioma may follow impaction of a calculus in the pelvis of the kidney, though this is of extremely rare occurrence.

Gumma of a kidney is an exceptionally rare condition, and rarely leads to palpable enlargement of a kidney; when a tumour is felt it is usually hard and not very tender.

The urine, as a rule, contains albumen, renal epithelium, and pus cells. Blood may be present also. If the kidney is much enlarged, the lesion in it cannot with certainty be diagnosed from other tumours unless the evidence of co-existing lesions elsewhere is exceptionally strong.

Renal calculus.

There are several forms of renal tumour which are directly or indirectly caused by renal calculi, viz.:—

Hydronephrosis.
Pyonephrosis.
Hæmatonephrosis.
Malignant growth (epithelioma of the pelvis).
The calculi themselves.

It is very rare, however, to find a tumour resulting simply from the presence of calculi and not due to one of the first four complications which have already been mentioned and considered. Occasionally a kidney filled with calculi may give rise to a large, hard, solid, and tender tumour, a condition which is difficult to diagnose and is likely to be mistaken for malignant disease. In very thin subjects, and if the calculus is large, it may be palpated. Occasionally if more than one calculus is present, on bimanual palpation they may be made to grate together.

The chief symptoms pointing to calculi are:—Pain and tenderness over the affected kidney extending over a period too long to be growth, frequent micturition, hæmaturia, pyuria, and albuminuria. The pain is usually situated in the loin below the first rib, or may be over the front of the abdomen, along the course of the ureter and into the groin. It varies very much in intensity.

In this form of the disease the calculi are usually large, and colic is not a common symptom. Blows on the lumbar region, sudden movements of the body, jolting or shaking movements are likely to cause exacerbations of the pain. Hæmaturia is variable in degree and frequency. It may or may not be associated with pain or colic. If present, it is generally increased by exercise and diminished by rest. In malignant disease hæmaturia is independent of exercise or jarring movements, and is not much influenced by rest.

The normal amount of urine may be passed, and it may be normal in appearance, or, if blood is present, it will be coloured pinky, reddish, brownish, or porter coloured according to the amount present. The reaction is, as a rule, acid, but may be alkaline if the urine has undergone decomposition in the renal pelvis. A brownish deposit of blood, pus in varying quantity, and a reddish deposit of uric acid may be seen. Blood clots are not usually present. Microscopically, red blood corpuscles, pus cells, epithelial cells, uric acid crystals, oxalate of lime crystals, phosphate crystals and hyaline casts may be found. Albumen is usually present. The total amount of urea should be estimated, as it gives a good idea of the amount of normal kidney tissue left.

If any doubt remains, an X-ray examination by a competent operator will demonstrate the presence of calculi, especially if they are of such a size as to cause palpable enlargements of the kidney. It is important that the patient should be specially prepared for the X-ray examination by the previous administration of purgatives or enemata, to be sure that any shadows that may be seen are not cast by fæcal collections within the bowel.

The kidneys may be enlarged in acute nephritis, chronic tubal nephritis, and in lardaceous disease, but without giving rise to palpable tumours. It should also be remembered that if a patient is very thin, and the abdominal walls are flaccid, a normal kidney can be distinctly felt. A moveable kidney can be easily felt, but it can generally be made out to be of normal size unless it has become the seat of some other changes, especially hydronephrosis.

Appointments.

Naval and Military.

Staff Surgeon P. Minett, R.N., to the *Lord Nelson*.

Surgeon C. G. Sprague, R.N., to the *Indomitable*.

Captain H. C. Keats, I.M.S., has taken up duty as Superintendent of Jullundur District Jail.

Territorial Forces.

Second London (City of London) Field Ambulance: Lieutenant F. R. Humphreys to be Captain.

West African Medical Staff.

C. F. Watson, Medical Officer, Northern Nigeria, to be a Senior Medical Officer, Northern Nigeria.

Civil.

Dr. W. A. Brailey, Consulting Ophthalmic Surgeon to Guy's Hospital and a former Fellow of Downing College, has been elected to an Honorary Fellowship at Downing College, Cambridge.

E. J. F. Hardenberg, M.R.C.S., L.R.C.P., has been appointed Medical Officer to the Post Office, Chingford.

A. Norman Leeming, M.B., B.S. Lond., has been appointed Assistant Medical Officer to the Colwyn Bay and Colwyn Cottage Hospital.

F. A. Sharpe, M.D., D.P.H., has been appointed Medical Officer of Health and School Medical Officer, Chesterfield.

Municipal.

S. R. Alexander, M.D. Lond., L.S.A., M.R.C.S., has been re-elected Mayor of Faversham for the ensuing year.

Owen Griffith, L.R.C.P. & S. Edin., has been elected Mayor of Pwllheli for the ensuing year.

Sport.

Rugby Football.

GUY'S v. LONDON WELSH.

It was a pity that the afternoon of November 11th should have turned out so wet, but the game at Wandsworth was not spoilt. Guy's were in top form, especially after they had got over a rather bad time during the first half, when the Welsh forwards were dominating the situation. After much defence Guy's got away and reached a good position on the Welsh line, where what looked like a try was ruled otherwise, and a five-yards scrum ordered. From here the home side got back to half-way, from where some good passing among their forwards enabled Jenkins to gain a try for them, which was subsequently converted. Soon afterwards Rook cut through well and ran clear. Eventually he passed in for Harkness to cleverly take and cross. Stokes hit the post with his kick, but on the wrong side. The try might have been scored by Rook himself had he run more determinedly, especially with the line at his mercy. It was fortunate that Harkness accepted the pass; it was a lob, and could scarcely have been expected.

Changing ends, the whole side played brilliant football, and from the kick-off the pace of the forwards enabled Stranach to score, Stokes goaling. Going well, with Millett playing like a veteran at full-back, the side settled down to a splendid game. The tackling was good, if still on the high side. Pritchard was excellent with his defence. Stokes was the next to score. A punt to the line, and his grand pace was too much for Edwards and Maddocks; he beat them in a race for the touch. No goal resulted. Twice Pritchard and Millett relieved from beneath their own posts. Then Anthony came away with the ball at his toes. A grand rush by all the forwards right upfield was stopped by a tackle. But a pass to Stranach was whipped out at once, and another try and goal resulted. One more try was got by good passing, Stokes, the last to receive, finally running beautifully round the defence.

Final score:—Guy's, 2 goals 3 tries (19 points); London Welsh, 1 goal (5 points).

GUY'S.—H. Millett (back); A. L. Stokes, G. B. Pritchard, A. H. Harkness, A. F. Rook (three-quarters); H. Guinness, C. H. Medlock (halves); W. S. Stranach, H. Hoby, V. Glendining, M. Tweed, O. Parry-Jones, A. L. Liebson, H. Anthony, A. B. Danby (forwards).

REMARKS.—It was a splendid win; thoroughly deserved. The forwards played well. There was much more push in the scrums, and the loose work was carried out with plenty of "devil." It is scarcely fair to individualize, but Stranach, Parry-Jones and Anthony were excellent. All the back division practically were in tip-top form. Pritchard did a just amount of good saving and touch-finding. Stokes has seldom played better or in more determined fashion. Millett is also improving with each game. Rook must show more confidence and go all out.

GUY'S v. OXFORD UNIVERSITY.

This match was played at Oxford on Wednesday, November 8th. The University made many changes from the team that was beaten on the previous Saturday by the Harlequins, but for all that they were too strong for the Hospital, who were beaten by 3 goals 3 tries to 1 try, or 24 points to 3.

Most of the scoring took place during the first half. The University back division passed very rapidly, and finally getting the ball to Poulton within a few minutes of the start, enabled that player to get over for a try. Before half-time Wilson, Donald, and Maritz gained further tries, Lagden, the International forward, converting two of them. The Hospital forwards played remarkably well. It is doubtful if they have given a better exhibition this season. In the loose they were very effective, and often they controlled the scrums. It was the three-quarters who seemed unable to get into their proper stride, and many chances that came their way through the ingenuity of Medlock and Guinness were spoiled by faulty passing, knocks on, or some other form of default.

The second half was not so fruitful in the scoring line. Some of this was probably due to an injury that befell Knott soon after the second half commenced. Knott strained a muscle and had to retire. Before the close Lagden scored another try for Oxford, and converted a try by Wilmer. Harkness, on the part of Guy's, gained an unconverted try previous to Wilmer's score. Thus, a somewhat disappointing game ended with the score as given above. With so many opportunities, the three-quarters, especially the centres, should have done something more to have brought the Guy's score nearer the Oxford total. Teams:—

GUY'S.—H. Millett (back); A. F. Rook, A. H. Harkness, G. B. Pritchard, A. L. Stokes (three-quarters); C. H. Medlock, H. Guinness (halves); R. S. Kennedy, H. Hoby, M. Tweed, O. Parry-Jones, A. B. Danby, A. L. Liebson, H. Anthony, R. V. Purkis (forwards).

OXFORD.—D. A. Shepperd (back); G. Maritz, R. W. Poulton, W. I. Cheeseman, A. F. Wilmer (three-quarters); F. H. Knott, L. R. Broster (halves); R. O. Lagden, H. S. Sharp, A. Gilmour, W. E. Thomas, A. A. Philips, G. Donald, A. A. Wilson, A. Rosling (forwards).

GUY'S v. LONDON IRISH.

Played at Catford on Saturday, November 18th, in a persistent and drenching rain. Towards the end of the game the light became very bad, and this, taken in conjunction with the wretched conditions generally, led to the second half being somewhat shortened. Guy's were without several of their forwards—a glance at the team will show who. The Irish had hoped to have Lieut. Dobbs in their pack, but he did not put in an appearance, so they played one short. It was not, as can be easily imagined, a great game, but Guy's put in a very good performance, winning by 18 points (3 goals and 1 try) to nil. They had to play up the slope to commence with, always somewhat of a drawback, but on Saturday more than trying. Very little handling was possible, so Guy's adopted long punting and smart following up. On such a day the plan was excellent, especially as Richardson, the Irish full-back, was rather slow, while it was most difficult to field the ball. Some good passing to Stokes, who punted over Richardson and beat him with ease for pace, led to the first try. Stokes goaled. From the kick-off the Irish forwards rushed down the field, and near the Guy's line there was some hard and very vigorous work. What the home side lacked in skill they certainly made up for in temper. However, after a word from the referee, things settled down, and strong defence kept the Hospital line intact. Defence was soon converted into attack, and Medlock dribbled past the full-back and

kicked on for Stokes to touch for an unconverted try.

The second half was almost too dark to follow the game, so it must suffice to state that Stokes gained a very fine try after a run from half way, a magnificent kick doing the needful to register a goal. A cross kick from the same player sent a forward over with another try, Stokes goaling again, the final score being as given above. Team:—

GUY'S.—H. Millett (back); A. L. Stokes, G. B. Pritchard, A. H. Harkness, H. Harrington (three-quarters); C. H. Medlock, H. Guinness (halves); W. S. Stranach, O. Parry-Jones, V. Glendining, M. Tweed, A. W. A. Davies, A. B. Danby, L. Horsley, A. L. Liebson (forwards).

REMARKS.—The side did all that could possibly be expected of them. Had it been a dry day they would probably have run up an even larger total. To put it mildly they had to resist a peculiar type of football, almost ferocious in its intensity at one point of the game. Some, perhaps, would scarcely call it football. Medlock kept his side together admirably during the trying time, and much of the credit for the victory is due to him.

So far the Rugby Football XV. have performed creditably. But the results to date would certainly be even better, if all the playing members would recognize the absolute necessity for strict training. We would impress upon all members of the team the importance of turning out regularly at Honor Oak for training practice. It is only in this way that the Guy's Hospital Rugby team can hope to attain to that excellence of which it is, undoubtedly, capable.

Association Football.

GUY'S v. IPSWICH TOWN.

The hospital were decidedly unlucky to lose their match to Ipswich on Saturday, November 11th, by the odd goal in five. The game, which was played at Ipswich before a large attendance, was very fast from the start, and continued to be so until about half-way through the second half, when both sides were practically run to a standstill. Both teams played excellent football, and had the true score been three goals to two for Ipswich the hospital should be in no wise disconcerted by the result at the hands of such a good club as Ipswich are known to be. After twenty minutes hard play Guy's opened the scoring through Bergh, who, in spite of his now infrequent appearances at footer, gave an excellent display throughout. The hospital soon lost their lead, for Ipswich, going straight through from the kick-off, drew level within two or three minutes. Just before half-time an Ipswich forward receiving the ball behind Evans, who had moved out of goal, put it into the net, and, much to the amusement of players and spectators alike, the referee gave Ipswich a goal for it. On resuming after change of ends, Guy's immediately pressed, and Bevis had bad luck with an excellent shot. Play again was very evenly distributed, and both defences were alternately kept hard at it, Veale and Bergh being decidedly unlucky in not scoring on more than one occasion. A nice centre from Camp, which Veale made the most of, put the hospital level, or virtually one up. Ipswich twice broke through the opposing defence, but found Evans one too many for them. A grossly unfair penalty kick was awarded Ipswich, who, being obliged to take it, in spite of their desire not to do so, showed themselves sportsmen and shot wide on purpose. Bevis, whose speed and skill were too great for his opposing half, brought the ball right in on one occasion and hit the bottom of the upright with a terrific oblique drive, while Neely had a long shot from about twenty-five yards which just skimmed the bar. With only ten minutes or so to go the game seemed to be going to end in a draw or win for Guy's, who were now pressing all the time, but the Ipswich forwards, receiving suddenly well up the field, passed the hospital halves and backs and their inside right gave the ball to their centre, who easily beat Evans from short range. The whistle went for time, and Ipswich thus won a fast keen game by three goals to two. Team:—

GUY'S.—J. Rhys Evans (goal); K. J. T. Keer, C. D. Neale (backs); H. B. Neely, J. Kyle, V. Golledge (half-backs); A. F. Camp, V. E. D. Bergh, R. M. Veale, R. Spong, S. W. Bevis (forwards).

REMARKS.—The whole team played well. Golledge was very unconvincing, and must steady himself more, and mark his wing man instead of looking at him. Spong seems afraid of running into anyone, and really must put more "guts" into his play. Neely was in good form, but is still inclined to let drive at the ball too much, which, though perhaps tempting, is no good to his forwards, who don't wish to be knocked over by the passes their halves give them.

GUY'S v. ALLEYN.

SURREY CHARITY CUP.

The ground at Burbage Road was under water in most places when the hospital visited it on Saturday, November 18th, to play the above cup-tie. Rain fell incessantly the whole of the afternoon, and this factor, in conjunction with the state of the ground, made good football impossible. Guy's started with a slight wind in their favour, and their left wing soon made its presence known. Several good centres by Bevis went begging, but this was almost inevitable considering the greasiness of the ball and the rate at which it came off the ground. Alleyn looked like scoring on several occasions, but failed for the same reason. As may be well imagined, play was of a very give and take character, both sides having about equal shares of the game. Guy's left wing, which was excellently backed up by Neely, was much too good for their opponents, and given a fine day would have considerably altered the score. In the second half much the same state of affairs continued, though several ugly rushes by Alleyn were only just checked by the sure tackling of the hospital backs. Evans was quite capable of dealing with all the shots which he was called upon to save, and, considering the wet state of the ball, his fielding was excellent though his goal kicks were feeble at times.

The game throughout looked as if it were going to end in a draw, and though, if one can say so on such a day, the hospital were just the better side, such a termination would not have been unfair to either party, and Guy's were somewhat lucky to score the only goal in the game about ten minutes from time. Team:—

GUY'S.—Rhys Evans (goal); Keer and Neale (backs); E. L. Jones, Kyle and Neely (half-backs); Spong, Coxon, Veale, Stebbings, and Bevis (forwards).

Births.

CAZENOVE.—On November 1st, at West Norwood Lodge, Knight's Hill, West Norwood, the wife of W. R. Cazenove, L.R.C.P., M.R.C.S., of a son.

KENT.—At Tong Shan, North China, on November 1st, 1911, to Dr. and Mrs. Hugh Kent, a son.

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE

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Passim.

IN our last issue we referred, at some length, to the difficulties which are constantly arising between the Hospital and the Southwark Guardians. This matter is such a serious one, not only to the Hospital and its patients, but also to the general public at large, that we feel compelled to bring the matter up again. The trouble is, unfortunately, of very long standing, and seems to arise from a complete misunderstanding on the part of the Guardians as to what their duties to the poor of their district are. As long ago as 1905 there was correspondence between the Treasurer of the Hospital and the Southwark Guardians, on the same subject. A woman, suffering from heart disease, was brought up to the hospital by her husband, and, there being no female medical bed vacant, was sent in a cab to the Relieving Officer. Being too ill to stand removal to the Infirmary away at Dulwich, she was kept at the workhouse until she died eighteen days later. Although the serious results of having no properly equipped receiving station in the district for which they are responsible, was pointed out to the Southwark Guardians by the Treasurer of Guy's, yet six years later things remain as they were. It is certainly high time that the Local Government Board should direct its attention to this matter, since the Guardians cannot indefinitely continue to neglect the duties to the poor under their charge, which are imposed on them by law.

IN our correspondence column will be found a letter from an Old Guy's Man, which will be read with the greatest interest and appreciation by all who are at all acquainted with the administration of our Hospital. A gentleman, who desires to remain anonymous, distressed at the many allegations against the Hospital and its administrators which have appeared in the Press of late, is anxious to mark his appreciation of the great foresight, organization, and loyalty with which Sir Cooper Perry has, for the last twenty years, carried out the many and arduous duties attaching to the post of Superintendent. He has consequently given a sum of £1,000, the income from which shall be expended for the benefit of the men trained, or in training, at Guy's, "in some way that the Superintendent may think desirable, provided only that he shall devote the money to some object which he, from his exceptional position, experience and qualities, shall judge most useful."

WE feel sure that all who are working, or have worked, with Sir Cooper Perry will agree with us that this friend of Guy's could not have directed his generosity into a channel more popular and more meriting recognition. What Guy's has gained by having a man of Sir Cooper Perry's unrivalled genius at its head is difficult to say, and his work has always been done with such an absence of ostentation that in many cases the Superintendent's hand has never been seen in the many changes and innovations which have been instituted during his term of office. We feel sure that the donor could not have chosen a method more in keeping with Sir Cooper Perry's well-known love of Guy's than by placing in his hands the means of benefiting Guy's men now and in the future. We feel that we speak on behalf of the whole hospital when we say that it is deeply conscious of the great debt which it owes to Sir Cooper Perry, and that we would join with our correspondent in his recognition of his genius for organization,

his unimpeachable rectitude, his determined and whole-hearted labours, and his consistent loyalty to all his fellow workers at Guy's Hospital.

It has been brought to our notice that great difficulty is experienced by those wishing to work at subjects of surgical interest owing to the incompleteness of the surgical reports. In many cases temperature charts are missing, while many observations of the greatest interest are either not made or are not recorded. This applies particularly to accident cases, and is in no way a reflection on the keenness of Surgical Ward Clerks, who very often have no opportunity of examining the case, and have to depend for their report upon the scanty information they can glean from busy House Surgeons or Dressers. It has been suggested that in the case of patients admitted into the accident wards, and especially those with fractures, a form might be filled in by the House Surgeon at the time of admitting the case, giving particulars as to the nature of the injury, etc., which could be copied into the report. A further point which certainly calls for remedy is the fact that all temperatures below 95° are not recorded, since apparently none of the hospital thermometers register below that point.

Those who attend Out-Patients will know that for some time Dr. Craig has been in the habit of kindly seeing and treating certain cases at Neurological Out-Patients which lie on the border-line between psychological medicine and neurology proper. By a recent recommendation of the Medical Committee this attendance is to be official and regular. Dr. Craig, who is henceforth to be styled the Physician for Psychological Medicine, is to attend in the morning of the first and third Wednesdays in each month in the Neurological Out-Patient Department, in association with the physician to that department, and will see and treat with him such cases as have a psychological as well as a neurological interest. Guy's is thus the first London hospital to recognize that psychologists and neurologists should work strictly in conjunction with each other, while from the student's point of view the advantages of seeing early mental cases diagnosed and treated cannot be over-stated. On the Wednesdays that he attends, Dr. Craig will show cases jointly with Dr. Hertz at the demonstrations which are held every Wednesday at 12 o'clock. These demonstrations will in no way replace the classes held at Bethlem, since the cases seen at Out-Patients are early ones, which are mostly curable, and are of the type not to be found in asylums.

The question as to which is the oldest of the hospital papers was recently raised in the *St. Thomas's Gazette*, and it may be of interest to our readers to know that the Guy's Hospital Gazette holds that distinction by a considerable number of years. Originally started in October, 1872, by a second year's student named Jones, the Gazette was later taken over by the Physical Society's Presidents, and was continued uninterruptedly until July, 1880. It was then suspended by the Treasurer on account of its having supported the Staff rather vigorously against the Governors in the nursing disputes. In November, 1886, permission was given to issue the Gazette again, with the condition that a member of the Staff should act as censor to prevent any repetition of discussions in the nature of that which led to its suspension. A new volume was accordingly commenced in 1887, and the publication of the Gazette has continued uninterruptedly until the present time.

The *Hospital* in commenting on some remarks of ours in Passim as to Dr. Salter's view that the remedy for the repeated "Hospital Scandals" of a certain section of the press lies in the nationalization of our hospitals, refers to the Gazette as "a censored organ, which, therefore, presumably expresses the official views of the authorities." We would point out that this is very far from being the case. It is true that the Gazette has the distinction of a censor, who, as we have stated above, was appointed when the Gazette was re-started after the disagreement on the nursing question. The censor, however, is intended solely as a protection against anything which might give personal offence to any member of the staff or administration, and is in no way concerned with the policy of the Gazette. Passim, as we have before pointed out, cannot pretend in any way to reflect the opinions of such a composite body as Guy's Hospital, and for any views expressed therein the editor and the editor alone is responsible. We would take this opportunity of pointing out as well that we cannot in Passim give expression to the many personal grievances, mostly of a purely domestic nature, which are continually being brought to our notice. Our correspondence columns are always open to

those who desire to grumble, providing always that they admit responsibility by sending us, not necessarily for publication, their names and addresses.

WE would call the attention of the authorities to a matter which has already been mentioned in previous numbers of the GAZETTE, namely, the fact that the appointment lists, and particularly the lists of qualified appointments, are not published until very shortly before the appointments commence. There is no doubt that this system deprives many men of the opportunity of securing appointments elsewhere if they are not successful in getting them here, and we feel sure that an earlier publication of the lists would be very much appreciated.

ELSEWHERE in our columns will be found a report of the Hospital Ball which was held at Prince's, on Monday, November 27th. It was most thoroughly enjoyed by all present, and we would express their thanks to the Ladies' Committee, and to the indefatigable secretaries, Messrs. A. S. Roe and G. R. Hind, to whose efforts a great part of the success of the evening was due. It is very much to be hoped that a Hospital Ball will become a recognized annual event, since we feel sure that there will always be sufficient support forthcoming to make it a financial possibility.

CHRISTMAS, with its many attendant Hospital festivities, is rapidly approaching, and already the noise of numerous rehearsals forms an admirable excuse for doing very little work. The Niggers, as usual, will make a tour of the wards on Christmas day, and the President of the Residents will present a theatrical entertainment on the evenings of the 26th, 27th, and 28th. Those desirous of obtaining tickets for the theatricals should apply to the President of the Residents or to C. C. Tudge, stating for which night they wish to have tickets, and as these latter are strictly limited in number, application should be made early. The programme will include a farce entitled "Laughter in Court," and a topical burlesque, which, we are informed, is to be called "MacTreth."

THE subject of theatricals brings to mind the oft lamented lack of an amateur dramatic society at the hospital. Such a society would, we feel sure, serve a very useful purpose, and would certainly be of inestimable value to the President of the Residents at Christmas. We should be glad to hear from any who, like ourselves, think that there is a need for a dramatic society at Guy's, while, should anyone be found sufficiently energetic to start one, we feel sure that he would not lack supporters.

IN January the new regulations by which the appointment of full surgeon's dresser is made to begin at the same time as the other appointments come into force. We should like again to emphasize the importance of making some arrangements to balance the loss of a month's holiday which this will entail on all future dressers. It must be insisted that the practice of taking a holiday in the middle of an appointment is unfair, both to the man himself and to the other members of the firm unless it is either universal or is officially recognized. There can be no doubt that a holiday of some sort is very much needed during the two years of ward appointments, since the keen man, and one must legislate for keenness, is certainly quite hard-worked during his time in the wards, if, as is mostly the case, he is reading for an examination at the same time. A month's holiday a year would not be in any way too much, and could, no doubt, be easily arranged for by giving each man a fortnight's leave of absence at a time, and dividing his work among the other members of his firm. This is practically what is done at present, excepting that it is now neither universal nor official.

FOR the benefit of those of our readers who are working in the Hospital we would state that the recent additions to and alterations of the Guy's Hospital Pharmacopœia which were published in the GAZETTES of Sept. 16th and Nov. 11th, have now come into use. From the practical point of view the most important of these alterations are, firstly, that the Injectio Strychninæ Hypodermica is now a 0·5 per cent. solution as compared with a 1 per cent. solution formerly in use for adults, and a 0·33 per cent. solution for babies. The second important alteration is in the Mistura Belladonnæ Composita, which now contains 3 minims of Tinctura Belladonnæ as compared to 1 minim previously. The additions which now come into use are mainly those which experience in the wards and in Out-Patients has proved to be of most value.

We are asked to announce that the Guy's Hospital Choral Society will hold their first concert of the season in the Physiological

Theatre, on Tuesday, December 12th, at 8.15 p.m. Tickets price 2/6, may be obtained from Sister Ruth and the Secretaries, Messrs. H. N. Eccles and H. Thompson. It is hoped that a large audience will support the society by attending the Concert, as they are entirely dependent upon its success for their financial stability. It is of the greatest importance that such societies as the Choral should be well supported, since the mind of the medical student is only too prone to run in a groove, and his interests to be limited by examinations, to the great detriment both of himself and of his future patients.

We would offer our hearty congratulations to Captain Hull and to Messrs. V. Townrow and H. Lee, who were successful at the recent examination for the Fellowship of the Royal College of Surgeons.

Those of our readers who send Christmas cards to their friends could not do better than purchase some of the special hospital cards which are printed by Messrs. Ash & Co., Ltd. They may be obtained by nurses from Miss Smith at the Matron's office, and by men from the Librarian. Through the kindness of Messrs. Ash & Co., Ltd., who, each year, present the proceeds of the sale of these cards to the hospital funds, it becomes possible, at a cost of only twopence, to send a seasonable greeting and a pleasant souvenir of the place to a friend, and at the same time to benefit the hospital funds.

Pass List.

University of London.

FACULTY OF SCIENCE B.Sc.

Physiology.

Second Class—A. Wills. Third Class—W. A. Young.

University of Manchester.

On 22nd November, on the recommendation of the Council and Senate, the Court of the University of Manchester resolved to confer the distinction of Emeritus Professor on Mr. G. A. Wright, formerly Professor of Systematic Surgery.

Royal College of Surgeons, Edinburgh.

The undermentioned was elected to the Fellowship, after examination, on the 27th July, 1911:—

H. Jones Roberts, M.D., J.P.

A Report upon the use of Salvarsan in Fifty Cases of Active Syphilis treated at Out-Patients.

By C. H. MILLS.

Considering the quantity of conflicting literature that has appeared recently upon the advantages and disadvantages in the treatment of syphilis by means of salvarsan, it may appeal to the interest of readers of the Gazette to know the actual results obtained with this drug in the Genito-Urinary Department of this hospital.

I propose, as far as space will allow, to give a detailed account of each case, and also a description of the routine treatment of early syphilis in general at Out-Patients in the above department.

The main object of this report will be an endeavour to discuss as far as possible the value of this new treatment in its application to Out-Patients in comparison with that of the other existing commonly accepted specifics, and also its value in combination with these.

By far the most practical and comprehensive procedure, therefore, will be an attempt to criticise it fairly from the point of view of—

(*a*) The patient,
(*b*) The hospital,
(*c*) The surgeon,

and this will be the better appreciated at the conclusion of this report.

It is only a little over nine months since the first exhibition of this drug at Mr. Thompson's Out-Patients, and therefore the results to be described must necessarily be strictly limited regarding future prognosis.

Method employed.—In every instance administration has been by means of the intra-muscular injection, with the exception of three of the early cases, in which the drug was injected subcutaneously. The latter method was discontinued for objections stated below.

The reasons for the employment of the above methods as opposed to the more popular and generally considered more effective intra-venous injection, are:—

(*a*) The intra-venous injection is absolutely unsafe unless the patient is properly prepared as for a severe major operation; is able to remain in bed for at least three days, and can be kept under constant observation. In this hospital, therefore, this procedure is impossible, it being against the regulations to admit patients suffering from early syphilis.

(*b*) The toxic effects, both of the drug itself and of the endo-toxins, liberated from the devitalized treponemata (Wechselmann and Gennerich)[1], exhibit a minimum of reaction when it is introduced intra-muscularly. Absorption is comparatively slow, and to a certain degree regulated by means of the massage described later.

(*c*) Some of the patients have been wasted, anæmic, half-starved, and in such a pitiable condition of general health, that one would hesitate to insert such a powerful drug as salvarsan directly into the circulation, whereas one would administer the same by the slow method of absorption with impunity.

(*d*) There are many out-patients who are unable to procure the intra-venous injection, because they are unable to obtain or afford the necessary absence from employment. Others, again, refuse to be warded for what they, and often their friends, consider to be a trivial and very common ailment.

(*e*) The only institutions where an out-patient with early syphilis can procure admission in London for the intra-venous injection, *i.e.*, the Lock Hospitals, many shun on the grounds of privacy and shame of the disease from which they are suffering.

On the other hand, they are glad to attend a general hospital as an out-patient, whereby their secret is maintained, and their work uninterrupted. This is only possible when the intra-muscular injection is employed.

Routine.—In order that these notes should be of any value it is, of course, of the utmost importance that there should be definite proof that every case subjected to this treatment has been without doubt a genuine case of syphilis. To avoid any error, therefore, in every case there was obtained either a positive Wassermann reaction, or else the spirochæta pallida was found to be present in the slides taken before treatment was commenced. In a large percentage of cases both tests were positive. In those cases where it was impossible to procure slides, apart from the positive serum reaction, there could be no doubt clinically as to the diagnosis—the manifestations being typical.

On a patient presenting himself as a query syphilitic, six slides are taken from the primary sore. Should this have healed, then mucous patches, papules, pustules, rupial patches, or enlarged glands (fluid from punctures) are similarly investigated. A specimen of his blood is taken for the Wassermann reaction. Of course, this has often been unnecessary where there was a typical secondary rash, but has been valuable in testing the reliability of the serum test in early syphilis, as also the value of slides in, say, doubtful cases presenting a scanty, discrete, query syphilide.

So within a week, even in the most obscure cases, the diagnosis is usually made certain. The few exceptional cases requiring two or more repetitions of both of these tests must be very rare in early syphilis. I have not yet seen a case that twice gave negative results to both tests, which later proved to be syphilitic.

When the diagnosis of syphilis is established the patient is carefully weighed and a blood count with colour index taken. He is then thoroughly examined for any contra-indications to the administration of salvarsan. (These I will mention under *Cautions*.)

The patient is now put on a course of arsenic for a week, commencing with a dose of three minims of the liquor, night and morning, for the first three days, increasing this to three times daily for the remaining four days. This is given combined with potassium iodide in corresponding doses of ten grains.

My reasons for this course are these:

(i.) It is only by experimenting with gradually increasing doses that one can hope to discover any individual idiosyncrasy as to the tolerance of arsenic and so prevent a recurrence of catastrophies such as have undoubtedly occured. To introduce, say, 0·6 gms. of salvarsan (containing as much arsenic as 400 minims of the liquor arsenicalis—though, of course, chemically tied), blindly into a patient, is as unfair to this new treatment as it is to the patient himself.

(ii.) As is observed in the treatment of certain diseases, notably Psoriasis, by a gradual increase of dosage the tolerance of the patient can be coached to withstand, with no disturbance, a dose of arsenic, which, if administered at the commencement would produce grave results. It is only fair to assume then, that a patient put on routine arsenic will be the better able to tolerate the subsequent introduction of salvarsan. Since I have observed this precaution, the toxic effects of the injection have practically been nil. A possible objection that can be raised against this routine is that more cases of optic atrophy have occurred in cases being treated with arsacetin, which had previously been put on atoxyl, than in those in which arsacetin was tried from the first (McDonagh).[2]

[1] Wechselmann: "Treatment of Syphilis."

[2] *B.M.J.*, September 23rd, 1911.

No cases are recorded, however, in which optic atrophy followed when the inorganic preparation of arsenic were the precursors. In the cases where I have given salvarsan after long courses of atoxyl (intra-muscular) there have been no ill effects up to date. A rough estimate can be made of the rate of excretion of arsenic, by testing the urine for arsenic on the second and third days in suspicious cases, *i.e.*, those already presenting slight albuminuria, or jaundice, or both.

(iii.) I give the potassium iodide during the early stage on the grounds of its power of promoting the absorption of small celled infiltrations and imperfectly organized exudates.[3] In lesions, therefore, such as much indurated chancres, large pustular and rupial eruptions, access to the harboured spirochætes may be the more facilitated for the salvarsan. Potassium iodide is now generally recognised as a valuable adjunct in the treatment of early syphilis, and I think the above can be the only practical explanation, whether the first line of attack be salvarsan, mercury, or any other drug.

(iv.) The elimination of arsenic is said to be aided when given in conjunction with potassium iodide to the same extent that the elimination of mercury certainly is in cases under long courses of mercury. No disasters are recorded such as would be expected to occur if the iodide of either arsenic or mercury were formed within the circulation in any considerable quantity.

(v.) In those cases of early syphilis, when nocturnal headache and periosteal pains generally are the chief symptoms complained of by the patient, potassium iodide relieves as if by magic.

(vi.) In so-called "precocious" syphilis, in which the early symptoms resemble in character those of the tertiary period, potassium iodide is indispensable.

(vii.) Potassium iodide is useful in conjunction with massage in promoting the absorption of the cellular infiltration liable to occur at the site of injection of salvarsan.

(viii.) The tendency to lower the blood pressure is beneficial in active syphilis in a working man, just as one would strictly prohibit any vigorous exercise or excessive strain in a private patient suffering from early syphilis with the main object of minimising any cardio-vascular stress. The circulation of toxin is retarded and undue strain on the larger arteries avoided.

(ix.) By this routine I have been able to watch the progress of early syphilis under treatment with salvarsan, free from mercurial treatment, and compare it with that in cases kept entirely on mercury, and at the same time give the former drug every chance by getting the patient in the best possible condition to receive salvarsan.

I now make it a practice, where possible, to excise the primary sore—*e.g.*, if situated on the prepuce, to perform circumcision. What first influenced me in this was a case of syphilis I was treating with mercury, by the intra-muscular injections at St. Peter's. His secondary rash, ulcerated fauces and anal mucous patches disappeared satisfactorily, but the chancre—a hard indurated mass surmounted by a scab—remained obdurate. On the patient's presenting himself for his weekly injection, seven weeks after disappearance of his rash, I noticed the subcutaneous tissues of his penis to be in a condition of syphilitic œdema, there being no mechanical paraphimosis or dropsy present to account for it.

He stated that this had developed after he had removed the scab and squeezed the chancre until it bled, five days previously, with the intention of getting it to heal. Proceeding to examine him I found that there was a definite recurrence of his secondary rash and his fauces were again ulcerated.

What had clearly happened was that he had reinfected himself with a colony of Spirochætes lying sheltered, as it were, within a zone of partially organized fibrous tissues—their favourite habitat. I have since had a similar case recur after treatment with salvarsan, and McDonagh has recorded three cases.[2] If it is impracticable to excise the primary sore, it is thoroughly scraped and touched with pure carbolic acid, which is, of course, painless. After the slough has separated a modification of Melchinkoff's ointment is applied (calomel 30%, in lanoline 5 parts, olive oil 1 part). I find that the olive oil renders the ointment of a much nicer consistency, especially when inunction is required.

I believe that if this practice were to become general these fearful cases of spreading phagedena of the penis would never occur. It should be applied to any sore of venereal origin.

In those cases where circumcision is possible, a gauze dressing steeped in iodoform emulsion is tied around the wound by leaving the ends of the stitches sufficiently long. No matter how septic or even putrid the tissues may be at the time of the operation, union has always occured satisfactorily, the gauze being removed on the

[3] Vol. ii., Ch. xxii., p. 318. A System of Syphilis.

[2] *B.M.J.*, Sept. 23rd, 1911.

third day, the patient fomenting the part in the meantime.

This local treatment also applies to rupial patches, the crusts being first removed. When situated on the face, however, the carbolic acid should be omitted, but the calomel ointment well rubbed in, whereby disfiguration is much lessened. This ointment is very useful in causing any secondary syphilide to fade from the face if well rubbed in at night and left on until the morning. It has prevented more than one patient from losing his employment.

Any syphilitic lesions which tend eventually to heal with the formation of fibrous tissue are always the most refractory to anti-syphilitic treatment, and always a source of danger as a stronghold for latent spirochætes. It is in these spots that the blood supply is poorest, and this explains why the spirochætes can live so long in them. The only means we have of exterminating the spirochæte, once established in the system, is by the introduction of certain antagonistic drugs. In any spot, therefore, where the blood supply is poor, the quantity of any drug introduced into the system that reaches that spot must be correspondingly poor. In any infected patient nature fights against the invasion by the spirochæta pallida :—

(*a*.) By means of a localised reaction in the tissues as evidenced by the zone of induration around the site of inoculation, also the local lymphangitis and adenitis.

(*b*) By means of the anti-bodies within the blood concerning which little is known as yet regarding syphilis.

It is only practical to aim at a line of treatment calculated to help nature most :—

(i.) Removal of the primary sore where multiplication of spirochætes is certainly taking place, and so definitely to rid the individual of quantities of active spirochætes and their toxins.

(ii.) By trying to discover a drug, harmless to the host, which will lower the vitality of the spirochætes and so their resistance to the anti-bodies.

(iii.) By doing everything possible to favour the production of the syphilitic anti-bodies by maintaining the best state of general health of the host by hygiene and suitable diet, etc., and by the avoidance of injudicious dosage of any drug.

I do not maintain for a moment that excision of the primary sore, no matter how early, will any way abort the subsequent development of the generalised infection of syphilis, but it must to a certain extent diminish the dosage both of the spirochætes and their toxins, and possesses the advantage of being able to do no possible harm, provided that it is done thoroughly.

It is now the practice at Out-Patients to remove any sore on the prepuce of a patient totally by circumcision, causing as little delay as possible for bacteriological investigations. Sections are also cut from the sores removed. In almost every case the patient is incapacitated for a shorter period of time after the circumcision than he would probably have been in getting the sore to heal. The occurrence of suppurating inguinal glands, phagedena and preputial cicatrices is entirely prevented.

The following case serves to prove that excision of the primary sore has no influence on the development of the generalised infection.

A patient, H. O'C., æt. 27, presented himself at Out-Patients' with a small hard and indurated preputial sore of seven days' duration, producing a marked condition of phimosis, Spirochæta Pallida were demonstrated on the slides taken, and circumcision was performed the same afternoon. Sections of the chancre revealed numerous spirochætes in the deeper layers. In spite of the fact that the patient was put on mercury by the mouth (liq.: Hyd. perchlor. m. xxx., t.d.s.), he developed a diffuse macular squamous rash, which appeared on the 52nd day after he first noticed the sore.

It may not be out of place here to describe the method of procuring the slides mentioned above.

The primary sore, mucous patch or moist papule is first compressed for five minutes with a piece of lint wrung out of boiling water.

The lesion is then carefully cleaned with methylated spirit, any necrotic débris also being gently removed without producing hæmorrhage. The methylated spirit is then dabbed off with another compress and the spot rendered almost dry.

The lesion is then "picked up" as it were and gently rolled between finger and thumb, gradually increasing pressure being applied. After about three minutes the pressure is released, when serum is seen to ooze up on the surface free from blood, having washed with it any possible spirochætes from the deeper layers. In this manner the Spirochæta Refringens which only resides on the surface of superficial ulceration, etc., is avoided as far as possible, and Spirochæta Pallida which is far more numerous in the deeper layers, as sections through chancres, clearly demonstrate, is most likely to be discovered. The hot compresses generally prevent any hæmorrhage. The serum is removed on a

platinum wire loop and deposited at one end of a prepared slide upon which have been placed one drop of commercial Indian* ink and one drop of distilled water. The three are then well mixed and drawn over the slide by means of the depressed end of another slide held at an angle as in the ordinary preparation of a blood film. It is well gently to grind the edge of the slide for "drawing" the film to remove the serrated edge which is always present if examined through a lens. Six slides are then taken. Within three minutes they are dry and ready for examination under an oil immersion lens.

Blood-cells, bacilli and spirochætes, stand out as transparent colourless bodies distinct in outline against a grey-brown back-ground. With care and practice the Spirochæta Pallida should easily be recognised when present in the preparation. The two points to be careful about are—

i. Not to make the film too dense.

ii. To include the minimum number of blood cells.

The possible sources of error are—

(*a*) Not to mistake the coarse blunt-ended Spirochæta Refringens with its few, large, irregular spirals, for the slender Spirochæta Pallida. The more numerous, small, and regular spirals of the latter and the delicate flagellum fading to nothing at either pole are the distinctive characters.

(*b*) In slides taken from lesions in or about the mouth, care must be taken after thoroughly cleaning them to isolate them from saliva since the Spirochæta Dentium, resembles Spirochæta Pallida minutely, and is present in every mouth where there are any carious teeth.

(*c*) Artefacts. In most films prepared in the manner described there can be found minute scratches which often closely resemble the Spirochæta Pallida. They are caused by any gritty particle ploughing a small furrow through the ground substance when drawing out the film (they can sometimes be seen at one end of the scratch); they always, therefore, lie in the longitudinal axis of the slide.

(*d*) If the lesion has had antiseptic dressings applied, especially if combined with specific treatment internally, the chances are greatly against obtaining the spirochætes.

The value of these films from a diagnostic point of view cannot be over-estimated. If the Spirochæta Pallida is present then it is definitely a case of syphilis, and this can often be determined directly the primary lesion is manifest. As a routine, then, it should be employed at Out-Patients, in every case presenting a sore, no matter how trivial, possessing the possibility of being venereal in origin.

During the past year I have seen four cases at St. Peter's where diagnosis was impossible clinically from the primary sore. Two of them were cases presenting, in each instance, a very small sore at the preputial orifice, but so masked by the accompanying excoriation from a purulent gonorrhœal discharge, that both the slight induration and the inguinal adenitis were of little help.

The other two cases, curiously, almost exactly resembled each other, each presenting a soft sore on the dorsum of the body of the penis, covered by a scab, beneath which was a small collection of pus. In these the House Surgeon agreed with me that there was no definite induration, neither were the inguinal glands discretely enlarged, but as one would expect to find them from any septic sore, unevenly enlarged, and more so on the one side than the other, and painful.

All these four cases proved later to be syphilitic. Slides were not taken, and Wasserman's test gave negative results in three, and in the fourth was positive, a week before a definite secondary macular squamous rash developed. If slides had been taken it is probable that the time during which treatment was withheld would have been shortened.

On the other hand, of course, in the absence of the Spirochæta Pallida in two or even three searchings at intervals, one is by no means justified in assuming that the lesion is not syphilitic.

But this evidence, combined with a negative Wassermann reaction (although the latter is very uncertain in early syphilis), should make one hesitate before condemning a patient to such an ordeal, both physical and mental, as the diagnosis of syphilis once pronounced, must enforce, should that patient present a lesion typical of syphilis clinically.

The few weeks lost where treatment is withheld until diagnosis is beyond doubt (and this should occur but rarely with all the modern methods at our command: dark ground illumination, Giemsa's stain, etc.), are surely more than compensated for by the knowledge that such mistakes are rendered impossible.

Technique.—The points to be aimed at in the ideal intra-muscular injection are these:—

(*a*) To obtain thorough absorption of the drug with a minimum of pain and discomfort.

* I now find that the addition of Tr. Iodi. ♏ xx. to Indian ink ʒjs. gives a better film with clearer definition.

(*b*) Selection of a site which is subject to a minimum amount of pressure and friction, whether the subject assumes positions of activity or rest.

(*c*) Thorough asepsis.

(*a*) To obtain thorough absorption, etc.

In the first twenty cases N_2O anæsthesia was administered to every patient for the injection. I then decided that this was unnecessary if the skin was first infiltrated with novocaine and adrenalin.

I have also tried the addition of various local anæsthetics to the salvarsan which I will presently enumerate.

Another factor in lessening the pain is not to force the whole of the substance to be injected into one spot thereby producing a hard tense swelling. Any nerve fibres subjected to this abnormal and constant tension must perforce transmit impressions of acute local disturbance.

By only injecting small quantities, say ʒj, in one spot, and by altering the position of the point of the needle, the whole quantity can be diffused over a large area, none of it being under undue tension and necrosis of tissue is less likely to occur.

Massage, immediately after the puncture is sealed, for at least fifteen minutes is the great secret in minimising any pain or discomfort liable to occur after the effects of the local anæsthetic have worked off. This massage consists in forcibly kneading the muscle or muscles with the intention of diffusing the injected fluid between the muscular planes and bundles. By this means any collection which would otherwise have remained *in situ* is broken up and evenly distributed. This massage, when possible, is repeated for three days following the injection. The patient is easily taught to perform this for himself night and morning, and readily complies when advised that pain will certainly ensue without. While this has been in force there have been no cases in which complete absorption has not ensued within three weeks (with the lumbar injection).

(*b*) *The selection of a situation, etc.*—As already stated I have abandoned the subcutaneous injection. The reasons being:—It is more painful. A zone of infiltration is more apt to occur producing a large persistent tumour, which cannot be controlled by massage. I have seen a condition of necrosis of the skin and subcutaneous tissue follow this method, and also a case in which the solution became encysted, the resultant abscess being finally opened, absorption having been nil. And finally because there is nothing to commend it.

In the first fifteen cases (not including the three which received the subcutaneous injection) the drug was administered into the gluteal muscles. In this series of cases the amount of local reaction was very varied. Some complained of much pain, either at the site of injection or else passing down the leg, or both. Four developed a typical attack of sciatica, one of which extended over a week. All complained of discomfort both on walking and sitting down. In one a large mass of infiltration developed, the size of half a cocoanut, lasting three weeks in spite of massage.

The above objections induced me to try other situations. The muscles at the inferior angle of the scapula were used for the next six cases.

The pain was certainly less, also the discomfort, except that it disturbed sleep in two of them. The tissues being somewhat lax seemed to predispose to the formation of local infiltration, since in every case absorption was not complete until after a fortnight's massage.

The next spot I tried was in the spinal muscles of the lumbar region, two inches above the iliac crest and one and a half inches out from the mid line. Here the injection is encased, as it were, within the posterior lamella of the lumbar fascia covering in the erector spinæ muscle.

The last twenty-six cases have been injected in this region with highly satisfactory results locally. The pain complained of has resembled more a sensation of stiffness as of that occurring from a bruise. The patients have been able to walk and sleep with slight or no discomfort, and with a few exceptions their work has been unhindered. The zone of infiltration is usually slight and absorption much quicker than in the other situations mentioned. Massage is very easy to perform on the lumbar region by making the patient lean over a table face downwards with his feet on the ground.

It is also easy for the patient to massage himself in this region as opposed, say, to his infra-scapular region.

(*c*) *Thorough Asepsis* (modus operandi).—The patient is placed in the left lateral position (for right-handed surgeon) with the knees flexed and drawn up towards the chest. The skin over the right lumbar region is then firmly rubbed with biniodide of mercury in spirit, and painted with iodine when dry. An area of skin the size of a penny, an inch or so distant from the exact point in the underlying facia to be punctured, is rendered anæsthetic with novo-

caine and supra-rennin borate,* by the infiltration method. About 20 minims of the above is then injected into the subcutaneous tissues and muscle, and given three minutes to take effect.

The syringe and needles (always have at least two needles of large bore, such as are used for subcutaneous saline infusion) are placed in distilled water or normal saline after sterilization, not into an acid or alkaline antiseptic lotion, as I have witnessed elsewhere, whereby the reaction of the solution to be injected must be affected. The syringe is now charged with the salvarsan. The needle is then plunged through the fascia (the anæsthetised area of skin being drawn over the spot required) and pushed about an inch into the substance of the muscle. It is now watched for a few seconds to ensure that it is not in communication with any vessel of any size, and this should be repeated every time the position of the point is changed during the subsequent injection. The needle should not be soiled at any time prior to introduction with the salvarsan, thereby preventing the possibility of the formation of a tract between the surface and the deposits in the muscles incapable of healing by primary union on account of the foreign matter lining it.

The syringe is then affixed and the injection completed as described elsewhere, the same puncture hole through the fascia being employed during the manipulation of the point of the needle.

The skin is allowed to resume its normal position again, and the puncture sealed with a piece of Mead's strapping and massage commenced. A valvular puncture is thus assured. The patient should feel nothing after the initial prick of the hypodermic used to infiltrate the skin.

*This is manufactured in tabloid form by the Saccharine Company.

(To be continued.)

Papers by Guy's Men.

E. C. Bevers, M.A., M.B., B.Ch., F.R.C.S., Assistant Surgeon, Radcliffe Infirmary, Oxford: A Case of Traumatic Myositis Ossificans with Involvement of Musculo-Spiral Nerve.—*Practitioner*, December, 1911.

A. H. Carter, M.D., B.S., Assistant Physician, Wolverhampton and Staffordshire General Hospital: A Case of Cardiac Failure treated by Cane Sugar.—*British Medical Journal*, 25th November, 1911.

W. Sampson Handley, M.S., M.D., F.R.C.S.: The Fatalities of Appendicitis and their Prevention.—*Practitioner*, December, 1911.

W. Arbuthnot Lane, M.S., F.R.C.S., Surgeon to Guy's Hospital: The First and Last Kink in Chronic Intestinal Stasis. A paper read before the Derby Medical Society on October 17th, 1911.—*Lancet*, 2nd December, 1911.

R. O. Moon, M.D. Oxon., F.R.C.P., Physician to the Hospital for Diseases of the Heart, Soho Square: A Case of Tricuspid Regurgitation.—*Lancet*, 25th November, 1911.

R. W. Murray, F.R.C.S. Eng., Surgeon to David Lewis Northern Hospital, Liverpool: The Treatment of Cleft Palate.—*Lancet*, 25th November, 1911.

The late F. W. Pavy and another: Inhibition of Post-mortem Production of Sugar in the Liver, and of certain forms of Glycosuria, by the Intravenous Injection of Dilute Solutions of Sodium Carbonate.—*Proceedings of Physiological Society*, 22nd July, 1911; *Journal of Physiology*, vol. xliii. (3 and 4), 1911.

M. S. Pembrey, M.D. Oxon., and another: Observations upon the effects of warm humid atmospheres on man.—*Proceedings of Physiological Society*, 21st October, 1911; *Journal of Physiology*, vol. xliii. (3 and 4), 1911.

A. H. Todd, B.Sc., M.B., B.S.: Parotid Tumours. Read before the Physical Society at Guy's Hospital.—*Clinical Journal*, 22nd November, 1911.

W. Hale White, M.D., F.R.C.P.: A Clinical Lecture on Alcoholic and Syphilitic Affections of the Heart, delivered at Guy's Hospital.—*Clinical Journal*, 29th November, 1911.

Appointments.

Naval and Military.

The undermentioned Staff Surgeons are promoted to be Fleet Surgeons, dated 12th November:—

M. P. Jones. | E. S. Tuck.

The undermentioned Surgeons are promoted to be Staff Surgeons, dated 23rd November:—

G. L. Buckeridge. | M. V. Smith.

Surgeon G. Carlisle is appointed to the *Drake* on commissioning, 30th November.

Lieut.-Colonel L. F. Childe, I.M.S., has been appointed Senior Medical Officer at the Parsi Hospital, Bombay, and to act as Principal of Grant Medical College during the absence of Lieut.-Colonel C. H. L. Meyer.

Captain G. B. F. Churchill, R.A.M.C., has been granted one year extension of service in India.

Civil.

Hugh T. Campkin, L.D.S. has been appointed Hon. Dental Surgeon to the Kensington and Fulham General Hospital.

F. P. S. Cresswell, M.B., B.S., F.R.C.S., has been appointed Medical Referee under the Workmen's Compensation Act for County Court Circuits 24, 30 and 31.

T. Morgan, M.R.C.S., L.R.C.P., has been appointed Certifying Surgeon under the Workshops and Factory Act for the Llandovery District of Carmarthenshire.

Some Acute Abdominal Cases.

CLINICAL LECTURE BY F. J. STEWARD.

I propose to go over with you to-day some cases which illustrate certain types of "The Acute Abdomen."

They are such cases as everyone of you who go into general practice will come across from time to time, and therefore, from your point of view, as well as the patient's, it is extremely important that you should be able to recognise the condition at the earliest possible moment, since successful treatment is entirely dependent upon early diagnosis.

The occurrence of an intra-abdominal catastrophe is nearly always signalised by sudden violent abdominal pain. Intense shock ensues immediately, and this is both general and local. The pulse is feeble, thready, and generally rapid, but may be slow. The patient is pale, with a cold clammy skin and sighing respiration.

Locally, the condition of peritoneal shock causes board-like rigidity, a retracted abdominal wall, and marked tenderness.

The degree of shock varies greatly, its intensity being determined both by the severity of the lesion and the condition of the patient. It may, for instance, be quickly fatal.

I remember seeing in Clinical a feeble-looking old man who had been picked up unconscious in the street. He was almost pulseless, and had a retracted rigid abdomen. He died shortly after admission, and at the post-mortem a perforated duodenal ulcer was found.

On the other hand, there may be no evidence of shock at all.

A fine robust young woman walked into the Surgery and stated that after having her dinner somewhere down the Borough High Street, she had felt something burst inside her. She appeared to be perfectly well, but her abdomen was found to be rigid, so she was fortunately admitted. I operated an hour later, and found a large hole in her stomach, and her dinner in her pelvis.

After a time shock passes off, giving place to the condition which Mr. Symonds has named the period of repose. The patient feels and looks better, the skin becomes warm, the pulse improves, and the pain diminishes. I prefer to call this the dangerous period, because it may lead to delay in sending for the doctor, or if the patient in this condition is seen by the doctor, he is in danger of underestimating the urgency of the case. Such a mistake may be fatal, and you must avoid it at all costs. For operation during this stage gives the very best results, since the patient is in good condition generally, and locally peritonitis has not yet developed. The key to the situation is the fact that the abdominal wall remains rigid. No matter how the condition may have improved in other ways, if the abdomen remains rigid you may be sure that something serious, and which will lead to peritonitis, has happened inside it. You can rely on this, it will not lead you wrong.

A few hours later the patient becomes worse again, and the signs of peritonitis appear. The pulse rate rises, pain and tenderness increase, vomiting becomes more frequent, and the abdomen gradually becomes distended. Operation now is less likely to be successful as each hour passes, and must, therefore, be carried out at the earliest possible moment.

I will now describe some cases to you.

The first case is the following: A man, aged 26 years, was admitted on April 4th this year, and his history was that while out walking, two days previously, he was seized with acute, severe abdominal pain and a sudden desire to pass water. He passed some water, but the pain immediately became worse. He continued in much the same condition, except that he got worse rather than better. For 36 hours before admission he had passed no urine. He was not sick at the commencement of or during the attack, and he was not constipated.

So all one had to go upon was this history of pain; and it is particularly noteworthy that he had had no sickness, because in the majority of cases which turn out to be serious, the patient is sick soon after the onset. On admission the pulse was 96 and the temperature 102°, therefore there was evidence of an inflammatory condition, but he did not appear to be very ill. On examining the abdomen we noticed first that it was decidedly distended; next we saw that he did not use his abdominal muscles; and on palpation it was found that the greater part of the abdominal wall was rigid, the rigidity being more marked in the lower part. Palpation brought out another point—that the abdominal wall was tender. It was also clear that the bladder was distended. A catheter was therefore passed and 30 oz. of urine drawn off. This was normal in character. Examination per rectum revealed nothing unusual.

Now what was the meaning of this condition? There is no doubt whatever about the main consideration, and that is, that when you find an abdomen in that condition forty-eight hours after the onset of the attack, namely, an abdominal wall not moving with respiration, which is rigid and tender to the touch, the patient has some serious peritoneal lesion. Peritonitis was therefore diagnosed.

I have chosen this subject particularly to lay stress on the examination of the abdominal wall because that is more important than anything else. Another point *à propos* of these cases which it is extremely important to bear in mind is, that patients seized with these acute attacks in the abdomen are frequently given opium or morphia. If the patient is in severe agony the friends often practically compel the doctor to give him something, and he gives opium—usually a hypodermic injection of morphia. We know that has the effect of masking the symptoms; the patient will feel better, the pain will diminish, the pulse will settle down, and the sickness may stop. But it is important to realise that whatever features are masked, by giving opium or an injection of morphia, there is, fortunately, one that is not greatly affected by it, and that is, the rigidity of the abdominal wall. That, in addition to the history, may be all that there is to go upon. In a case of this kind, therefore, one often has to rely, for the diagnosis, simply on rigidity of the abdomen.

The next thing we had to decide was the cause of this man's peritonitis. As this man first had pain when he was out walking, and he felt a sudden desire to micturate, and had pain on micturition and afterwards, and then retention of urine for thirty-six hours, there was a strong presumption that the peritonitis was caused by some condition arising in the man's pelvis. Then we wondered whether it might be anything connected with the bladder itself. We felt that any lesion of the bladder could be excluded, because, after the catheter was passed, the urine which was drawn off was normal and contained no blood. Of course, peritonitis may be caused by rupture of the bladder; but in this case there was nothing suggestive of that. If you have such a history and you diagnose peritonitis in the lower part of the pelvis in a man, there are not very many causes, and you will be right in probably well over 90 per cent. if you diagnose appendicitis. We thought, therefore, this man's peritonitis was set up by appendicitis, and that possibly we might find his appendix attached to the bladder or in close proximity to it.

Now, what is the correct treatment under those circumstances? I have no hesitation in saying that laparotomy should be performed as soon as possible. In a case of this kind you must advise immediate operation, otherwise disaster is likely to ensue. If you find in an abdominal case that there are signs of marked peritonitis after forty-eight hours, immediate operation must be performed, because it points to the probability that the condition is setting up diffuse and spreading peritonitis. If a mild case of appendicitis arises which produces localised peritonitis, or an abscess, at the end of forty-eight hours, you will either feel a definite localised swelling or the rigidity and pain will be localised to the right lower quadrant of the abdominal wall. That was not so here. He was diffusely tender, and diffusely rigid; he did not move the lower part of the abdomen at all.

He was taken into the theatre, and I incised the lower part of the abdominal wall. The peritoneum contained a large quantity of thin pus, and the intestines were inflamed. On examining the cæcum and appendix, the latter was found hanging down into the pelvis and adherent to the bladder by its extremity. This clearly explained the bladder symptoms. By pulling gently with my finger, the appendix was freed and could be delivered into the wound. It was seen to be immensely swollen, as big as one's index finger, and most of it was black, and obviously gangrenous. It was ligatured and removed. Next I gently swabbed out with sterile gauze as much fluid as possible without undue damage to the peritoneal surfaces. Thirdly, drainage was provided by passing a number of gauze tampons in different directions. Dressings were then applied, and the patient was put back to bed. In these cases I prefer to provide wide drainage with tampons and to leave the abdomen open, rather than to trust to a tube for drainage.

Now with regard to after-treatment. After he had come round from the anæsthetic he was propped up in bed by a number of pillows into almost a sitting posture. This promotes drainage in a downward direction, and therefore away from the dangerous area of the peritoneum, that is, above the umbilicus, where peritonitis is very likely to cause subphrenic abscesses, which are difficult to detect, and also to treat even when found. The patient was also given quantities of saline infusion, both rectal and subcutaneous. The object of this is to replace the fluid which is lost by vomiting and by the effusion into the

abdominal cavity. It also acts beneficially by diluting the toxines, and promoting excretion by the skin and kidneys. Nothing should be given by the mouth, because in presence of severe peritonitis peristalsis is absent, and absorption does not take place, so that any food given merely distends the stomach, causes distress to the patient, and will probably cause vomiting. When, however, the bowels have acted you know that the paralysis produced by the peritonitis has passed away, and you can begin to feed by the mouth.

The next point is the question of aperients. After an operation of this kind, if the patient is doing well and the pulse is good and the abdomen is not becoming more distended, there is no particular necessity to worry about aperients for thirty-six hours, or even forty-eight hours. Then I give an ounce of castor oil, and if the patient is doing well the oil acts. If the patient is not doing well, that is to say, if the peritonitis is not clearing up, paralytic condition of the intestines will persist, and purgatives will do no good. I have tried all sorts of things, and have come to the conclusion that there is not much that does good, at any rate, by the mouth. If you give calomel, or mag. sulph., or croton oil, as a rule they result in the patient being sick, and there is no apparent difference in the general condition. I do not think it is a case of giving aperients until they act. Peristalsis will return if the patient is going to get well. What does much to relieve the patient's discomfort from over distension is the administration of enemata, turpentine preferably, because they help the passage of flatus. For the next few days our patient progressed favourably, and after his castor oil had several good actions. On April 9th I therefore did what I usually do in these cases: under an anæsthetic, I re-opened the wound, removed the gauze drains, and, as the peritoneum looked normal and recovered, I sutured the abdominal wound. The first time I performed this secondary suture was in December, 1902, and since that time I have done it in a large number of these cases of diffuse peritonitis resulting from appendix trouble. The advantages are obvious. The result of leaving the wound open at the time, and providing very free drainage, is that the peritonitis clears up more quickly, and instead of having a wound which has to be dressed daily for, perhaps, a number of weeks, and which will probably in the end leave the patient with a ventral hernia, there will be primary union from the time of the suturing, a rapid convalescence, and a hernia will be prevented. Primary union has taken place in all but three of the cases treated in this way, and in the three failures, the patient was no worse off than before. Moreover, the second anæsthetic provides an opportunity of making a thorough examination and so possibly forestalling the collection of pus in some loculus which has become shut off.

This patient did well for some days, but then complications arose. The pulse rose and kept up, and so did the temperature. Therefore, another careful examination was made, but the abdomen was found to be supple, and not tender anywhere, and so the conclusion was that at any rate he had not got further peritonitis. A few days after that his liver was found to be large and tender, and later he developed distinct jaundice. So the diagnosis of suppurative pylephlebitis was made, and he died on April 21st. Post-mortem he was found to have extensive pylephlebitis, and although it is scarcely a surgical condition, I will say a word or two about it. It is, as you know, *the result of portal pyæmia*, causing embolic abscesses in the liver and later, perhaps, general pyæmia, and abscesses in other parts. The main symptoms are: rise of temperature, perhaps rigors, increase in the pulse rate, enlarged liver, tenderness of that organ, and jaundice. With regard to its frequency, I can best give you an idea of that by telling you that during twenty years there were only eleven cases in the hospital. The disease is, therefore, a very rare one. With regard to its causation, of those eleven cases, five were associated with appendicitis, two were in connection with gall stones, one was associated with gastric ulcer, and one with ulcerative colitis.

The next case was that of a woman, aged 31 years, who was admitted into Clinical ward one afternoon at 3.30, with the following history. She was a worker in some local factory, and had been out to have her dinner. On the way back from dinner she was seized with *sudden intense pain in her abdomen, such as* she had never had before, and she was sick. Her friends brought her to the hospital, and on arrival she was collapsed. She was taken into the ward, when it was found that her pulse was 130, and feeble, and her temperature subnormal. She was cold, pale, and obviously in great pain. The abdominal wall was retracted, it did not move on respiration, and was as rigid as a board, as well as being very tender all over. Percussion revealed no liver dulness. Within a short time of admission she was several

times sick. So here was a sudden abdominal catastrophe, resulting in severe general and local shock. She was given saline infusion, and when I saw her a few hours later, her colour and pulse had considerably improved. She said she felt better, but the abdomen was still rigid as a board and tender all over, and it did not move at all when she was asked to breathe deeply.

Now as to diagnosis. You will have no difficulty in coming to a conclusion after what I have already told you. The condition was clearly either due to effusion of blood from an extra-uterine fœtation, or to perforation of some part of the alimentary canal. Her pallor suggested bleeding, but the rigidity and tenderness were more marked than usually results from bleeding. Again, the onset was immediately after a meal, and the pain was high up in the abdomen in the first instance, not in the pelvis. The conclusion arrived at was that she had a perforated gastric or duodenal ulcer. This patient had no liver dulness. That in itself is not conclusive evidence that there is gas in the peritoneal cavity, but it is of some value. If, however, it is found that the liver dulness is present at one time, and absent at another, it is clear proof that there is effusion of gas into the pertioneal cavity, which has pressed the liver away from the abdominal wall, so that the dulness is lost.

Immediate laparotomy was performed, and a perforation was found in an ulcer on the anterior wall of the stomach. The perforation was sewn up without much difficulty, and the abdomen washed out with large quantities of saline, until the fluid was returned clear. The abdomen was then closed without drainage. Within a few hours of perforation you may wash out the abdominal cavity, and close completely, without drainage, and no harm will ensue. I have done this many times, and have had no cause to regret it.

The patient made good progress and was soon convalescent.

The third case illustrates a less acute type of acute abdominal disease. The patient was a woman, aged 43 years, who was admitted into Lydia ward on April 22nd last. She was seized with severe pain in the abdomen, three days previously, and had several times vomited. On admission her pulse was 92 and temperature 97°. When I saw her she did not look particularly ill. She had signs of localized peritonitis on the right half of her abdomen, where there was immobility on respiration, rigidity and tenderness, especially at one particular spot. On examining the abdomen carefully the rigidity relaxed to some extent, and there was found to be a swelling to the right of the umbilicus with a distinct rounded lower margin. The swelling was dull on percussion, and the dulness was continuous with that of the liver. On those facts we diagnosed inflamed and distended gall bladder, with localised peritonitis around it. Why did we think it was gall bladder, not appendicitis? The answer is, that this swelling had a definite lower margin. A swelling due to appendicitis has not usually a very definite margin, and if it has, it is not the lower, but the upper margin. Acute distension of the gall-bladder is nearly always caused by gall-stones suddenly becoming impacted in the cystic duct with subsequent infective inflammation of the gall-bladder. It may suppurate, or may rupture and set up acute peritonitis. The stone is nearly always a large one, and it was so here. I was asked at the time whether impaction of a gall stone in the cystic duct necessarily causes these acute symptoms. It does not necessarily do so. For instance, last June I saw a man who, without having had any symptoms referable to his abdomen, was found by his doctor to have a large distended gall bladder that nearly reached the iliac crest, and was found on operation to be due to an enormous gall stone having become impacted in the cystic duct. The difference in symptoms is due to the fact that in some instances the contents of the gall-bladder are infected, and in others they are sterile.

The treatment was simple, I made an incision over the swelling and came down upon a distended, inflamed gall-bladder as anticipated. After packing round with sterile gauze, I drew off the contents of the gall-bladder with a trochar and cannula, and on opening the gall-bladder found that there was a stone half an inch in diameter impacted in the cystic duct. This was fairly easily removed. A tube was then tied in the gall-bladder, and the wound closed round it. The patient did very well and after the tube was removed the wound rapidly closed.

From the Gazette's Special Pathologist.

H.V.M.—Clacton-on-Sea.—Microscopical examination of these fæces shows them to be composed of mucus, holding in its meshes the remains of leucocytes and epithelial cells derived from the intestinal mucosa, as well as zoogloeal masses of bacteria. This description agrees with that of "mucous cast" of the bowel and suggests a diagnosis of mucous colitis.

Two Cases of Acute Pneumococcal Salpingitis.

During the present year two cases of acute pneumococcal salpingitis have been admitted to the gynæcological ward of the hospital. It is interesting to note that in each case the symptoms were urgent, and such as to lead to a diagnosis of ruptured tubal gestation. Both cases were, therefore, operated upon soon after admission, and inflamed tubes containing pneumococcal pus were removed.

The great frequency with which salpingitis is associated with the gonococcus tends to make one forget that other organisms may be responsible. One author states:—". . . The two most important varieties of salpingitis are the gonorrhœal and the septic, or streptococcic. Numerous investigations seem to show that the gonococcus is the most frequent invader of the tubes, but some writers believe that streptococcic infections are equally common. It is possible that while the streptococcus is less frequently found than the gonococcus in tubal inflammations, a large proportion of the apparently sterile cases may have been due to streptococcic infection, in which the organism had died out. Other less frequent causes of salpingitis are micrococcus, pneumococcus, and colon bacillus, either alone or combined with other organisms. . . ." *

It is no doubt true that the majority of cases of salpingitis and pyosalpinx are due to gonococcal infection, but it is also obvious that suspicion may be quite unjustifiably cast on innocent persons by the assumption that this is so in every case.

The mode of entry of the pneumococcus in these cases is not certain. In the first case, which was very severe in type, evidence of general pneumococcal infection was found post-mortem. It may be that there was a blood infection, and that the Fallopian tube was the first situation where urgent symptoms were produced. Rischbieth, discussing 57 cases of pneumococcal peritonitis (Quarterly Journal of Medicine, January, 1911), states that in no case in the series was there any evidence of infection of the general peritoneal cavity from the Fallopian tubes. "The condition," he says, "seems to have been confused with pyosalpinx or perimetritis (in which the pneumococcus has been found)."

The second case was much milder, and the patient recovered after removal of the more affected tube, and drainage of the pelvis.

Dr. Eyre tells me that he has met with cases of pneumococcal infection of the genital tract in women where the husband has become secondarily infected, and developed a pneumococcal urethral discharge. In neither of the cases here recorded was any history or evidence of a urethral discharge in the husband obtained, nor was there any history given of a purulent vaginal discharge in either of the women.

* Kelly & Noble: Gynæcology and Abdominal Surgery. i., 163.

Case 1.—N. T., a married woman of 23, was sent to the hospital by Dr. Warner Lacey, with the following history:—After a normal confinement in December, 1910, a period occurred towards the end of January, 1911. The next period was missed, but on March 13th the patient had a slight show. Two days later she was awakened early in the morning by intense pelvic pain. The same afternoon she was seen by Dr. Lacey, who found pulse 132, temperature 104·2°. A tender swelling was felt in Douglas's pouch, and this, at a later examination, appeared to be harder.

On admission, under the care of Mr. Targett, the temperature was 104°, pulse 120, respirations 24. There was pain and some rigidity all over the abdomen, especially above the umbilicus, but not marked in either of the inguinal regions. The patient, however, had had a morphia suppository to relieve her pain during the journey up to the hospital. *Per vaginam* the uterus was felt displaced towards the left, but not forwards. A tender nodular mass was felt in the pouch of Douglas. There was some reddish-brown vaginal discharge.

A diagnosis of ruptured tubal gestation was made, in view of the history of one month's amenorrhœa, the sudden attack of pain, the presence of a blood-stained vaginal discharge, and of a tumour in Douglas's pouch. Some secretion in the breasts was also noted, but the value of this sign was, of course, discounted by the recent confinement, though the mother had not been suckling the child. The alternative diagnoses suggested were acute appendicitis and acute salpingitis. The facial appearance of the patient and the furring of her tongue suggested sepsis rather than collapse from much loss of blood. The temperature also would have been exceptionally high for a case of ruptured tubal gestation. The bulk of the evidence, however, appeared to be in favour of the latter condition.

As the patient's condition got worse, the abdomen was opened through the mid-line ten hours after admission (March 16th). On opening the peritoneum no free blood was seen. The small intestine and omentum were lightly adherent over the pelvis, and on separating them there was an escape of several ounces of sero-purulent fluid. The intestines were injected and inflamed. The right Fallopian tube and ovary were acutely inflamed and œdematous, and pus was oozing from the abdominal ostium. A similar condition, less marked, was found on the left side. There was no evidence of old tubal disease. The appendix cæci was normal.

The appendages on the right side were removed, and the pelvis mopped out with saline. A wide rubber tube was placed in the pelvis and the wound closed above and below it. Continuous rectal saline infusion was begun as soon as the patient was back in bed.

Cultivations from the pus in the right Fallopian tube gave a pure growth of pneumococcus. A vaccine was prepared and a dose of 2·5 millions administered on the second day after the operation, March 18th.

Subsequent history.—The fluid collecting in the drainage tube was removed at intervals with a syringe, but it was not large in amount. The temperature fell somewhat. The bowels were opened after the administration of several grain doses of calomel. There was much flatulent distension, which was relieved by turpentine enemata. The respiration rate increased to 36, and patient looked flushed. On the 19th the drainage tube was removed and a gauze wick substituted. After an injection of pituitary extract she had a loose action of the bowels and passed a good deal of flatus, with much relief. But the respiration rate continued quick, and moist sounds were heard at the bases. The salines were omitted and patient was propped up in bed. There were no signs of effusion or consolidation.

The following day there was pain on breathing and some troublesome diarrhœa, which was relieved by treatment. Stimulants and a further dose of vaccine were given. The embarrassment of respiration increased and patient became weaker and died on the evening of the 21st, the fifth day after the operation.

Autopsy.—Both lungs covered with thick lymph. Collapse of the whole of right lung and lower lobe of left. No pneumonia. Acute pericarditis, hæmorrhages into the cardiac muscle, and early endocarditis. The intestines were gummed together with thick purulent lymph. Mucous membrane of uterus inflamed for about one inch above the cervix. The right lung, spleen, and swabs from the uterus and pericardial fluid were sent for bacteriological examination, and all gave a pure growth of pneumococcus.

CASE II.—E. T., a married woman, aged 33, was admitted under the care of Mr. Bellingham Smith, on May 13th, for vaginal hæmorrhage and abdominal pain. She had had three normal labours, the last two years before. In January last she had a miscarriage. On May 6th, the menstrual period being then three weeks overdue, patient was seized with acute abdominal pain while lifting a couch. Vaginal hæmorrhage followed. There was also severe diarrhœa and vomiting. With two slight remissions, the bleeding, together with the pain and diarrhœa and vomiting, continued for a week. Vaginal examination revealed no abnormality during the earlier part of the week, but on the seventh day a lump was felt in the right fornix, and it was found to bulge into the rectum also.

On admission the patient looked ill and rather pale, and seemed in pain. Temperature, 99·2°; pulse, 116. The lower part of the abdomen was prominent, and rather rigid and tender; resonant to percussion. No free fluid could be detected. *Per vaginam*, a firm mass about the size of a goose's egg, was felt behind and to the right of the uterus. It was very tender and fixed, and it displaced the uterus forwards and to the left. The cervix was rather soft; there was no vaginal hæmorrhage.

On the history, and the presence of a recent tumour behind the uterus, a diagnosis of tubal mole was made.

At the operation, performed by Mr. Davies-Colley, it became obvious soon after the abdomen was opened, that the condition was of a septic nature and not due to tubal gestation. The peritoneum in the region of the tumour was acutely inflamed, and covered with thick fibrinous flakes. Accordingly the upper part of the abdomen was packed off with gauze. Pus, greyish-white in colour and rather thin, was found among the pelvic coils of intestine. The right Fallopian tube was inflamed and swollen, and closely attached to the right ovary; both were removed. The left tube was also inflamed and attached to the ovary, but not swollen. This was, therefore, not removed as it was thought that the inflammation would resolve, and it was desired to save one ovary if possible, as the woman was only 33. The appendix cæci was inflamed, apparently by direct spread from the neighbouring organ: it also was removed. A rubber drainage tube was left in the pelvis, and the wound closed above and below.

The parts removed consisted of a tubo-ovarian abscess. The pus from its interior gave a pure culture of pneumococcus.

Two days after the operation the temperature was raised slightly, and remained between 99° and 100° for a day or two. Some discharge from the wound continued for about a fortnight, but the patient remained free from pain from the time of the operation. The wound was healed by the 17th day, the later convalescence was uneventful, and on her discharge patient was feeling quite well.

In conclusion, I wish to thank Mr. Targett and Mr. Bellingham Smith for kindly allowing me to publish this account of the above cases. A. N. C.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Hygiene and Public Health. 12th and Revised Edition. By Sir Arthur Whitelegge and Sir George Newman. (London: Cassell & Co., 1911.) Price 8s. 6d. net.

Twelve editions of a scientific book in twenty years is a sufficient guarantee of its value without further recommendation. For a readable synopsis of the whole field of Public Health it has scarcely a rival and students for the D.P.H. as well as those actively engaged in Public Health will find it a mine of useful information.

The present edition has been completely revised and enlarged by about one hundred pages. The chief part of the enlargement is due to the amount of space devoted to school hygiene, but recent legislation also adds its quota.

A new feature is the introduction of several very useful illustrations, notably in the parts of the book devoted to meteorology and parasites. There are also

several minor improvements, such as the enlarged print of the titles on the top of each page, so that on looking for a subject not in the index, the eye is more easily arrested as the pages are turned over. We congratulate the authors on their work of revision.

Outlines of Biology. By Mitchell and Mudge. 3rd Edition. (Methuen & Co.) 6s.

As written to meet the requirement of the Conjoint Board, this small book is excellent. For the higher exams. further chapters on Embryology are required. We are not in favour of the "cram" book. This manual just escapes it.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—ED., G.H.G.]

Sir Cooper Perry.

DEAR SIR,—A friend of mine, desirous of remaining anonymous, wishes in some way to mark his recognition of the great work that is being carried on by Guy's Hospital, and of the efficient and unostentatious way in which it does that work. In common with many others he has observed with regret the attacks which from time to time, and especially lately, have been made upon the Hospital authorities in certain organs of the Press. He is more impressed by the adequacy and restraint of the defence, as detailed in the Superintendent's letter published in your last issue, and he wishes as heartily as all friends of Guy's must, that as wide a circulation could be assured to that defence as has been vouchsafed to the attack. My friend feels that the public do not, or, as he says, cannot, appreciate properly the enormous anxiety and responsibility which attach to the chief administrative posts in a great hospital, an anxiety which is accentuated in these days of democracy and cheap newspapers, and he wishes to give some proof of the admiration he feels for the magnificent service rendered by the Superintendent during the past twenty years.

My friend has been deeply interested in the metropolitan hospitals long enough to recall the times before the advent of Sir Cooper Perry, and to remember that the profession and the public owe to his initiative many reforms in the conditions under which hospital patients are received and treated. My friend feels that without Sir Cooper's intelligent and well-informed foresight Guy's might easily have lost its proud place among the pioneers in the hospital world; without his genius for organisation, his unimpeachable rectitude, his determined and whole-hearted labours and his consistent loyalty to all his fellow workers there might not be about the place nowadays that splendid spirit which has for so long been the admiration and the envy of all its rivals.

This old friend of Guy's has, therefore, given me £1,000, and has asked me to request that you will announce his desire that the income from this sum shall be expended for the benefit of the men trained or in training at Guy's in some way that the Superintendent may think desirable, provided only that the choice shall lie with Sir Cooper himself, and that he shall devote the money to some object which he, from his exceptional position, experience, and qualities, shall judge most useful.—Believe me, dear Mr. Editor, Yours very truly,

AN OLD GUY'S MAN.

Dec. 7th, 1911.

Sir Samuel Wilks.

DEAR SIR,—I see you are asking for stories of Sir Samuel Wilks. I have heard a few while at Guy's which I do not recollect having seen in print, and send them to you.

At a big medical dinner or reception a fashionable physician from a well known watering place who was notorious for the fact that he owed his large practice to a charming manner and pretentious ways, which concealed a really appalling ignorance, was anxious to be introduced to Dr. Wilks as he then was. Wilks, with his abhorrence of all shams, when asked if Dr. X—X— might be introduced to him, exclaimed in a tone of voice intended to be heard by the aspirant, "What! that —— rogue X—X—!"

In Wilks' earlier days, when his fame was greater as a pathologist than as a consultant, two partners in a London suburb were attending a difficult case and decided to call in a physician. The day was a Bank Holiday, and one partner remained with the patient while the other hurried round London in a brougham endeavouring to find a consulting physician at home. He finally returned to the patient's house with Wilks. As the brougham stopped at the door the other partner came down the steps to see who had arrived; when he saw Wilks he exclaimed "What on earth have you brought Wilks for, the patient isn't dead yet!"

A physician was telling his clerks some pathological point that Wilks had first elucidated, and leaning over the patient's bed, began: "Do you know, Wilks——" when suddenly the patient, a costermonger, thinking the physician was addressing him, burst out with "Do I know whelks; Yes, many a barrowful I've sold of them!" Yours faithfully,

November 27th, 1911. M. ASTON KEY.

The Prospects of the Medical Profession.

SIR,—I do not think "Middle Aged Guyite's" cheery-hearted optimism is infective. I did not intend

to continue this correspondence, but his last letter contains some glaring statements.

Does he seriously mean to tell us that he has never suffered from the competition of District Nurses and Midwives? Almost every medical paper contains references to these unqualified practitioners. Only recently the *British Medical Journal* had a leading article entitled "Nurse or Minor Medical Practitioner." Personally, I have lost a good deal from their interference and ministrations.

Like "Middle Aged Guyite" I attend no midwifery case under a guinea; but, since the advent of a midwife, who is also the District Nurse, more than half my guinea patients have been confined by her. She charges half a guinea for a case, and I see by the statement of accounts of the District Nursing Club that she has earned as much as £20 from midwifery during the year. "Middle Aged Guyite" will admit, I think, that I am £40 to the bad from her competition.

Another statement I must challenge. How did "Middle Aged Guyite" do twelve cases of vaccination in an hour? He says he was a Public Vaccinator. Did he make twelve separate visits in the hour? Did he carry out all the instructions of the Local Government Board as every honest vaccinator should? He mentions nothing about the visit of inspection a week later and the fresh dressings to be applied to the arm, not to mention the clerical work entailed. If "Middle Aged Guyite's" optimism will allow him to enthuse over all this work at half-a-crown per head, he must rate medical services at a very low value.

Whatever "Middle Aged Guyite" may say, the fact remains that the outlook is a poor one, and no good can be done by painting in rosy colours and bolstering up a profession which is noble in all but remuneration.—Yours faithfully,

"COTSWOLD."

The Residents' Dance.

A MOST successful Hospital Dance was held on Monday, November 27th. The *venue* was the same as that of last year's Rugby Football Club dance, namely, Prince's, and the arrangements for enjoyment and comfort left very little to be desired.

The number present was not so great as at the dance last year, and we think the Dance Committee were very wise in their efforts to keep the number within reasonable limits.

The hostess of the evening was Mrs. Hale White, who, with Lord Goschen, graciously received the guests on their arrival, and we would here take the opportunity of conveying to them our sense of their great kindness in so doing.

Among others present were: Dr. Hale White, Mr. and Mrs. Symonds, Sir Alfred and Lady Fripp, The Matron, Dr. and Mrs. Fawcett, Dr. and Mrs. French, Mr. and Mrs. Steward, Mr. and Mrs. Fagge, Mr. and Mrs. Rowlands, Dr. and the Hon. Mrs. Eason, Mr. and Mrs. Turner, Mr. and Mrs. Mollison, Mr. and Mrs. Shenton, Dr. Craig, Mr. Ogle, and Dr. Allport.

With regard to the dancing itself there is little to be said, the floor and band were both excellent, and as far as one could judge by appearances, met with the unqualified approval of all present.

We are glad to see that a hospital dance, whether under the auspices of the Rugby Football Club or the Residents, has been proved to be a possible annual success, and think we are expressing a general feeling in hoping that a Guy's Dance will in the future be recognised as one of the permanent social engagements of the year. Though we have not had the exact figures, we understand that financially the dance was sufficiently successful to enable the Committee to send a substantial cheque to the Treasurer of the Hospital.

Obituary.

Thomas H. W. Landon.

Guy's men of the late Nineties will hear with the greatest regret of the untimely death of Mr. T. H. W. Landon, M.R.C.S., L.R.C.P., of Turffontein, South Africa, who died suddenly on October 27th last from anaphylaxis, the result of an injection for chronic rheumatism.

Mr. Landon entered Guy's in 1893, and held all the usual appointments, finally acting as Assistant House Surgeon to Mr. Symonds from April to June, 1899. Tall, thin, and fair, with slow, characteristic speech resembling in many ways that of an American, with a dry inimitable humour and a very kindly heart, he was exceedingly popular both with the members of the Staff and among his contemporaries at Guy's.

It may be of interest to the present generation to know that to Landon alone is due the initiation of that now very important part of the Christmas Festivities—the Children's Tea at Out-Patients.

On November 6th, 1897, he wrote a letter to the GAZETTE with reference to the provision of clothes as Christmas presents for poor Out-Patient Children, and between that time and Christmas he organised the first Tea for two or three hundred children in the Out-Patient Department. The Tea was an immense success, subscriptions came in very readily, and from that day to this there has been every year unfailing support for what is generally considered to be one of the most successful methods of celebrating Christmas at the Hospital.

Landon left Guy's about 1900 to take up practice in South Africa, and, as far as the present writer remembers, has only been in London for a short period since.

The greatest sympathy will be extended to his relatives in England, to whom a short paragraph in a South African paper was the first intimation of his death.

Nursing News.

On October 26th, Miss Alice Hart, Sister of the Electrical and Light Department since December, 1909, was appointed Sister-in-Charge of Stephen Ward.

On October 26th, Nurse Owen left the Hospital on completion of her three years' training. Nurse Quin, Head Nurse in Bright Ward, was transferred to Stephen Ward, and Probationer Windley was appointed Head Nurse in Bright Ward.

On October 27th, Miss V. N. Kiddle, Medical Night Sister, was appointed Sister-in-Charge of the Clinical Wards. Miss Alice Park is acting as the Medical Night Sister, pro tem.

On October 31st, Miss Dorothy Woodward, Sister-in-Charge of the Surgery since September, 1908, left the Hospital on her approaching marriage. Miss Editha Sweet-Escott, Surgical Night Sister since May, 1911, was appointed to succeed Sister Dorothy in the Surgery, and Miss Florence M. Thompson, who completed her three years' training in December, 1910, was appointed Probationary Surgical Night Sister.

On November 4th, Nurse Stewart left the Hospital on completion of her three years' training, and Probationer Spurway was appointed to succeed her as Head Nurse in Dorcas Ward.

On November 6th, Nurse Ford left the Hospital on completion of her three years' training to take up her duties on the Private Nurses' Staff, and Probationer Sterling was appointed to succeed her as Head Nurse in Lazarus Ward.

On November 17th, Nurse Cox left the Hospital on completion of her three years' training, and Probationer Colston was appointed to succeed her as Head Nurse in Martha Ward.

On November 17th, Nurse Kirkham left the hospital on completion of her three years' training, and Probationer Shann was appointed to succeed her as Head Nurse in Bright Ward.

On November 17th, Miss Gladys White took up her duties as Preliminary School Instructress, pro tem. Since completing her training in March, 1910, Miss White has held the appointment of Sister at the Royal Surrey County Hospital, Guildford.

On November 18th, Miss M. D. Collingwood (Sister Bright) resigned her appointment, and Miss Mildred Bishop succeeded her as Sister-in-Charge of Bright Ward.

On November 22nd, Nurse Salter left the Hospital on completion of her three years' training to take up her duties on the Private Nurses' Staff, and Probationer Weighill was appointed to succeed her as Head Nurse in Naaman Ward.

On November 25th, Nurse E. Blenkarn, Staff Nurse in the Out-Patient Department, left the Hospital on her appointment as Sister at the County Hospital, Newport, and Probationer Jordan was appointed Head Nurse in the Out-Patient Department.

Sport.

Rugby Football.

GUY'S v. UNITED SERVICES.

The Services were rather too strong for the Hospital at Portsmouth on Wednesday, November 22, although they were without their crack full back, Lyon. Harrison and MacIlwaine were also away from the pack.

Guy's started off with a rare burst; the forwards, who have come on tremendously since the earlier matches, quite took charge of the play for the first few minutes. Getting the ball in the scrum, they heeled smartly for Stokes, the last to receive, to open the scoring; but the Services were not long in replying. Gardner dribbled well, and kicked across for Brown to romp clear away and score near the posts. Harrison had no difficulty in goaling. Medlock and Guinness, also Millett, put up a good defence, but the home side improved as the game progressed. Gardner and Wodehouse were both tackled just in time to prevent a score; Millett then collared Brown when a score looked certain, but Lapage got to the ball, and with no one to beat gained a try, subsequently converting it himself, and thus enabling his side to cross over leading by 10 points to 3.

Services still pressed on the resumption. A good run by Lapage put Church over for an unconverted try. The game was very fast, and Guy's by no means done with, as determined play by the pack ended in Kennedy touching down. No goal resulted. Millett's kick in defending near his line was charged down, and in the resulting scramble Church gained a try which Harrison added to, the same player also goaling a very fine try by Campbell. The Services now led by 23 points to 6, but Hoby, following up well, gathered the ball from a kick from the Services' back. Stokes majorised, and thus the game ended. Team:—

GUY'S.—H. Millett (back); F. Harrington, A. H. Harkness, G. B. Pritchard, A. L. Stokes (three-quarters); C. H. Medlock, H. Guinness (halves); W. S. Stranach, R. S. Kennedy, H. Hoby, V. Glendining, M. B. Tweed, A. B. Danby, A. L. Liebson, H. Anthony (forwards).

GUY'S v. HARLEQUINS.

The way Guy's dashed off the mark at Twickenham on Saturday, November 25th, led one to hope they would repeat the feat of defeating the Harlequins as they did the previous season.

The forwards went off at a tremendous pace, and for fully a quarter of an hour Guy's were distinctly "on top." During this time Rook managed to squeeze over for a try by the corner flag, too far out for Medlock to do much with the kick. A little later Guy's forced a minor, but from now till half time the Harlequins walked away with the game. Once they got going, the pace of their outsides was too much for Rook or Flooks. Lambert, Brougham (twice) and Stoop got tries before the interval, and Lambert, goaling twice, the Harlequins led at half-time by 16 points to 3.

A great run, quite half the length of the field, by Lambert was the opening feature of the second half. A try resulted, but the place kick just failed. An accident to Tweed, who had to be carried off, caused

Guy's to play for the remainder of the game with only seven forwards. However, Maxwell Dove had to touch down twice in succession to save a score. Then Guinness got down, and Kennedy, backing up well, eventually crossed for a try wide out. The Harlequins were soon scoring again, however, Ward, Tibree and Elmslie being the try getters. Guy's being awarded a penalty kick, Medlock took it, and landed a splendid goal. Another try was gained by Stoop, but before the end Guy's rallied again, another unconverted try resulting. Two of the Harlequin's tries were majorised, so the final total read: Harlequins, 4 goals 5 tries (35 points); Guy's, 1 penatly 3 tries (12 points). Team :—

GUY'S.—H. Millett (back); T. Flooks, G. B. Pritchard, A. H. Harkness, A. F. Rook (three-quarters); C. H. Medlock, H. Guinness (halves); W. S. Stranach. R. S. Kennedy, V. Glendining, H. Hoby, O. Parry-Jones, M. Tweed, A. B. Danby, A. L. Liebson (forwards).

REMARKS.—It was a great pity Stokes could not turn out, as his pace against the speedy wingman of the Harlequins would have been very useful. Neither Rook nor Flooks could hold their men. Harkness and Pritchard tackled splendidly. Millett at full back was disappointing. Both halves played well. The forwards played well and kept going right to the end, notwithstanding the heavy score against them.

GUY'S v. NORTHAMPTON.

Guy's had hard lines in not winning this match at Northampton on Saturday, December 2nd.

They had the most of the game, and the failure to pull off the victory was due in no small measure to the fact that the three-quarters, especially the wingmen, did not make the most use of their opportunities. The forwards played soundly. Northampton were without Mobbs, and Guy's also had Stokes away, so that neither side could claim comparative weakness. There was but little breeze, but this was, during the first half, in favour of the Hospital. After some ten minutes' play a good round of passing by the home side left the ball with Cook, who kicked ahead for Pettitt to follow on and score a try. No goal resulted, but Guy's took the lead very soon after, Medlock touching for a good try, to which he added the extra points by goaling. Soon Guy's were away again, but the final pass to Harkness came very awkwardly, and a good chance was lost. Just before half time there was some exciting play, Earl gaining another try for Northampton, and a try to the Hospital just after looking a certainty, when Rook missed Harkness' throw.

After half time Northampton drew further away, a penalty against the visiting team resulting in a goal. Still Guy's pressed on, and Kennedy went over after dashing forward work. No goal resulted. Kennedy is usually well to the front, and his name as a try getter is becoming well known. Another try by Northampton ended the scoring, and a good match resulted in a win for Northampton by 1 penalty goal 3 tries to 1 goal 1 try, or 12 points to 8. Team:—

GUY'S.—H. Millett (back); A. F. Rook, A. H. Harkness, G. B. Pritchard, T. Flooks (three-quarters); C. H. Medlock, A. F. Guinness (halves); W. S. Stranach. R. S. Kennedy, V. Glendining, O. Parry-Jones, L. Horsley, A. B. Danby, A. L. Liebson, H. Anthony (forwards).

Association Football.

GUY'S v. QUEEN'S REGIMENT.

In spite of the fact that the United Hospitals took away three of the regular team, and that two more were on the sick list, the Hospital, for the second time this season, beat the Queen's by the odd goal.

The game, played at Honor Oak Park, on Saturday, December 2nd, was, in its early stages, fast and indicative of fairly good football, but towards the end of the second half became scrappy and ragged. The Queen's started by thoroughly demoralizing their opponents by their speed and keenness on the ball, and early on their inside right scored with a half-volley from close range. Veale headed a nice centre for the Hospital, and shortly afterwards put Guy's one up with a beautiful drive which completely beat the opposing goalkeeper. The Queen's took up the attack, and but for determined tackling by the home backs, and two or three good saves by Gray, would soon have drawn level.

Changing over, the visitors soon made their presence known, and equalized through Gray kicking the ball against one of their men in clearing, the ball rebounding into the net. Matthews had hard lines with a shot which just missed the upright, and play quickly changing ends, the Hospital goalkeeper stepped back over the line with the ball during a melée in front of goal. With the Queen's one goal ahead, play was rapidly developing into kick and rush, and remained so until the end, except for one nice piece of combination by Guy's which ended in Matthews just putting the ball past the opposing defence for Veale to slip through and drive into the net. Shortly before time the Queen's left back, in endeavouring to volley a hot shot by a Guy's forward, miskicked, and the ball glanced off his foot into the corner of the net. Guy's deserved their win, and with five of the regular team away, it says a good deal for the reserve men called upon to take their places that the Hospital was successful against a team which had just beaten Essex County with the same side out. Team:—

GUY'S.—Gray (goal); Keer, Neale (backs); Gill, Kyle, E. L. Jones (halves); Camp, Matthews, Veale, Spong, Staley (forwards).

Birth.

FLOWER.—To Mr. and Mrs. Norman Flower, 57, Hendford, Yeovil, on 19th November, a daughter.

Marriage.

MACALISTER-TANDY.—On 29th November, at the Parish Church, Wistaston, Cheshire, by the Rev. W. Bidlake, M.A., Vicar of Christchurch, Crewe, assisted by the Rev. W. N. Mayne, Rector of the Parish, George Hugh Macalister, M.D., younger son of Professor Macalister, F.R.S., of Cambridge, to Norah, elder daughter of John O'Brien Tandy, of Crewe.

Deaths.

SLACK.—On 17th November, at the Lodge, Uffculme, Devon, George Arthur Slack, M.R.C.S. Eng., son of the late Thomas Trivett Slack, of Paignton, Devon, aged 64.

SOPER.—On 27th November, at Essendene, Ventnor, Isle of Wight, William Soper, formerly of 307, Clapham Road, S.W., aged 76.

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE

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Passim.

CHRISTMAS, with its multitudinous customs, has already laid its hand heavily on the hospital, and however careful we may be to throw off the trammels of tradition during the year, yet when it reaches its end certain forms which even the most revolutionary spirit cannot and would not neglect, must be observed. Therefore, we would wish our readers, with all ancient pomp and ceremony, a Merry Christmas and a Happy New Year. There can be no surer way of finding happiness than in helping to secure it for others; and all who spend Christmas at the hospital, and help in any way to make it the pleasant, never-to-be-forgotten week for the patients, which it undoubtedly is, can rest assured that they will look back upon the Christmas week at Guy's as one of the happiest of their lives.

THE programme for the week is as follows:—

Mon.,	25.	Niggers go round the wards. Out-patient Tea for 670 children.
Tues.,	26.	Addison Concert. Lydia } Concert and Christmas Job } Tree. Martha Christmas Tree. Residents' Theatricals, 8.15 p.m.
Wed.,	27.	Dorcas Concert. Bright Concert. Residents' Theatricals, 8.15 p.m.
Thurs.,	28.	Mary Concert. Esther Concert. Queen Concert. Naaman Concert. Luke Concert. Pat. and Sam. Concert. Residents' Theatricals, 8.15 p.m.
Fri.,	29.	Charity Concert. Stephen Concert. Nurses' Entertainment, 8 p.m.
Sat.,	30.	Astley Cooper Concert.
Sun.,	31.	Bonfire, 12 midnight.

IN our correspondence column will be found a letter suggesting that the Out-Patients' Tea should be called in future after its originator, the late W. H. T. Landon. We are heartily in sympathy with this suggestion, and do not know of a finer monument to his memory than that of having his name associated with a day of intense happiness in the minds of many hundreds of little children. We would urge those of our readers, who have not yet done so, to visit the Out-Patient Department during the children's tea. It is a sight that must be seen and cannot be described; but to us, and to any lover of children, it is *the* great moment of Christmas week.

THE various combined dresserships to the special departments, the formation of which was announced in a previous number of the GAZETTE, come into force with the beginning of the year. The popularity of these new appointments can be seen from the number of applications received for the first set of appointments, and there can be no doubt that the value of getting an insight into the work of the special departments with the great saving of time induced by the new arrangement is immense. In order that the dressers may be able to fit in their attendance at the various departments in which they are to work, certain changes have had to be made in the days of attendance at Out-Patients. Gynæcological Out-Patients will in future be as follows:—Mondays, Mr. Targett; Thursdays, Mr. Bellingham-Smith; while Mr.

Thompson will see Genito-Urinary Out-Patients on Wednesdays and Saturdays.

There is no doubt that during the last year very many changes have been made which are greatly to the educational advantage of students at the Hospital, and the practical training to be got at Guy's now by a man who does the various additional appointments is unrivalled. The way in which members of the Staff have readily altered their arrangements to suit the convenience and interests of the students is an excellent example of the spirit prevailing at the Hospital, and calls for the gratitude of the men for whose benefit it is done. Mr. Targett's change of day from Saturday to Monday will be much appreciated, since, while allowing the attendance of dressers at the various departments to which they are attached, it will also allow many more senior men, who were unable to attend on Saturdays, to have the benefit of Mr. Targett's experience, and teaching at Gynæcological Out-Patients.

The system of appointing Clinical Assistants to the various Out-Patient Departments has been extended to the new Out-Patient Department for Diseases of Children, thus bringing that department into line with the others. There is to be a Chief Clinical Assistant, and two Ordinary Clinical Assistants, whose duties will be similar to those in the other Special Departments. The system of having Clinical Assistants in Out-Patients', although open to many objections, is undoubtedly of the utmost value to the men doing the appointment, and forms a most excellent mode of post-graduate study.

We regret that in a paragraph in the last number of the Gazette, on the subject of the arrangement by which the Physician for Psychological Medicine is to attend at Neurological Out-Patients, we accidentally insinuated that cases admitted into Bethlem Hospital are generally incurable cases. This is far from being the case, since one of the rules of admission into that hospital is that they shall be "persons of unsound mind, presumed to be curable." What we intended to convey was that the majority of cases seen at Neurological Out-Patients are cases where the disorder of mind is not sufficiently advanced to need treatment in a hospital, and they are therefore a type not seen by the student in his visits to Bethlem Hospital.

Medicine, as we know it to-day is so vast in its extent, with so many side-streets and blind alleys, that the student who enters its domain with the intention of keeping strictly to the high-road, finds that his task, though easy of contemplation, is remarkably difficult of fulfilment. It is almost an impossibility to know the whole ground of Medicine and at the same time to explore it; consequently we have two distinct types, the theoretical man who knows the ground, and the practical man who has explored it. Either of these types if strictly adhered to is open to objection and one of the great difficulties of modern medical education is to secure a mixture which shall not possess theory at the expense of practice and *vice versâ*, Everyone will admit the undesirability of the encyclopædic brain, which, filled with a vast store of figures, facts and fancies, is usually singularly inept in application. Robert Hall characterised an individual of this stamp as having "so many books upon his head that they pressed too much on his brain," and it is easy to recall numerous instances in the history of medicine of new observations discredited and neglected because of an unhealthy knowledge of, or a ridiculous reverence for, some statement which had the dubious merit of having appeared in print on more than one occasion.

On the other hand, a sound knowledge of the theory of medicine is essential to its practice, and the difficulty lies in proportioning the strictly limited time of the student properly between the two. The whole question of university education in London is at present the subject of enquiry by a Royal Commission, and although the enquiry is not yet finished, certain points of great interest have been brought out in the evidence. We understand that there appears to be a desire in certain quarters to advocate the German system of medical education, which, while no doubt suited to the conditions which exist in Germany, would, we think, be most undesirable if introduced in England. The whole boast of medical education in England has always been the great practical value of the training that the men receive, and we feel sure that the German system, by which the practical part of the work is mainly done after qualification, would be as unpopular as it would be undesirable in England. While waiting the final report of the Commission with great interest, it is nevertheless consoling to remember that the reports of Royal Commissions are famous for the fact that they are very seldom acted upon.

MR. ROWLANDS being desirous of relinquishing his work in the Orthopædic Department, it has become necessary to find a successor to him as Orthopædic Surgeon, and applications are to be invited for the post. It is proposed that the new surgeon shall, as well as directing the work in the Orthopædic Department, combine with this a direct interest in the Massage Department. It is also proposed that the successful applicant for the post shall be required to visit Sweden, there to make himself familiar with what is done in the teaching of gymnastics and remedial exercises, and shall then visit some of the best Orthopædic Hospitals abroad. When he returns he shall act as Chief Assistant in the Orthopædic Department until he has attained such a knowledge of the speciality as may justify Mr. Rowlands in relinquishing the department to him.

WHILE everyone will regret Mr. Rowlands's retirement from the Orthopædic Department, yet there is no doubt that that special department is such a large and growing one as to require the whole time and attention of a special surgeon, and the increasing claims of general surgery on Mr. Rowlands's time no doubt make it difficult for him to carry on the large amount of work to be done there. The combination of massage with orthopædic surgery is in every way to be desired, and the appointment is one which should offer the man who gets it an opportunity of obtaining an unrivalled experience in this most important and attractive branch of surgery.

WE have been asked to announce that the 17th Annual Dinner of the Guy's Hospital Dental Society will be held at the Trocadero Restaurant, on January 20th, at 6.30 p.m. Tickets, price 7s. 6d., may be obtained from the Hon. Sec., W. S. Stranack. Members who are applying for tickets are requested to give some idea as to whom they wish to be seated by, in order that the tables may be arranged accordingly.

THE following conversation was recently overheard in the Front Surgery. The A. H. S. was trying to impress upon a Boro' lady the importance of her consenting to come into the hospital, and pointed out that her refusal to do so might have a fatal result. The lady was firm, and insisted on going to her friends' home, and to her own home the next day.

"What are you going to do" asked the patient, A. H. S., for about the tenth time.

"Going 'ome."

"What! to die?" said the A. H. S.

"No, to-morrow" answered the Boro' lady.

WE regret that owing to very great pressure on space several articles have had to be held over to the next issue. We would point out to intending contributors that requests to us to publish articles in the *next* number of the GAZETTE, can very seldom be acceded to, although all contributions will be published as soon after their reception as possible.

Appointments.

Naval and Military.

Surgeon R. A. Rankine, M.B., B.S., R.N., to the *Victory*.

Surgeon Q. H. Richardson, R.N., to the *Vivid*.

Major R. T. Brown, R.A.M.C., Specialist Sanitary Officer to Burma Division, has been permitted to extend his tour of service for one year.

Captain H. C. Keates, M.D., I.M.S., has been appointed Civil Surgeon at Dehra Ghazi Khan.

Civil.

J. H. Campain, M.R.C.S., L.R.C.P., to be Assistant House Physician, Sheffield Royal Hospital.

J. B. Dunning, M.R.C.S., L.R.C.P., to be House Surgeon, Royal Cornwall Infirmary, Truro.

D. J. Munro, B.S., M.S., has been appointed Second Anæsthetist to the Belgrave Hospital for Children.

Pass List.

University of London.

M.D.

Branch IV.—MIDWIFERY AND DISEASES OF WOMEN.

W. P. Munden, B.S.

Change of Address.

T. S. Coombe, B.A., M.R.C.S., L.R.C.P., from Cranham, Stroud, to St. Werburgh Lodge, Hoo, Rochester, Kent.

D. C. Lloyd, M.R.C.S., L.R.C.P., from Guy's Hospital, to Whitefield House, Llanfairfechan, North Wales.

I. G. Samuels, L.D.S., from Guy's Hospital, to The Ceders, St. Leonard's Place, Exeter.

W. Evershed Wallis, M.B., B.C., from "The Gables," Groombridge, Sussex, to "The Goffs," Eastbourne.

G. B. Cockrem, from Guy's Hospital, to Royal Naval Hospital, Haslar, Gosport.

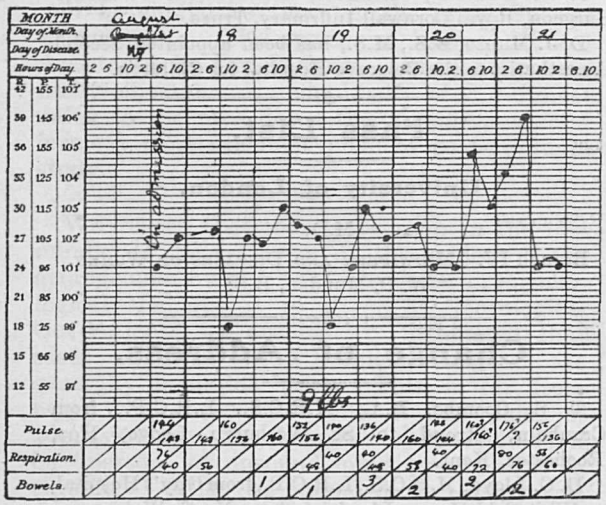
Five Cases of Œdema occurring in Children.

Œdema in children, as in adults, is commonly the result of nephritis, less commonly it may be associated with heart failure or with any one of the severe blood diseases. The following five cases are examples of severe œdema which is not due to any of those causes. In the fourth case the diagnosis is, perhaps, not certain; it is possible that in this case nephritis may exist, although the urine has remained free from albumen.

I.—A case of œdema following erysipelas. Henoch* and others have described under the name post-erysipelatous œdema a form of œdema confined to children under one year of age which follows an attack of erysipelas. In such cases, although the temperature may be high, even with hyperpyrexia, the œdematous parts may show absolutely no sign of redness or induration. Nevertheless, the œdema is an inflammatory œdema, and streptococci can be cultivated from the fluid expressed from the subcutaneous tissue. The condition is one of considerable rarity.

Olive B., aged 6 weeks, admitted August 17th, 1911, The child has been breast-fed from birth, and was healthy for the first three weeks of her life. At 3 weeks she had an abscess of right breast, and at this time the right arm became swollen. This swelling disappeared, but the child remained ill. Some days before admission both legs became œdematous.

Chart in Case I.



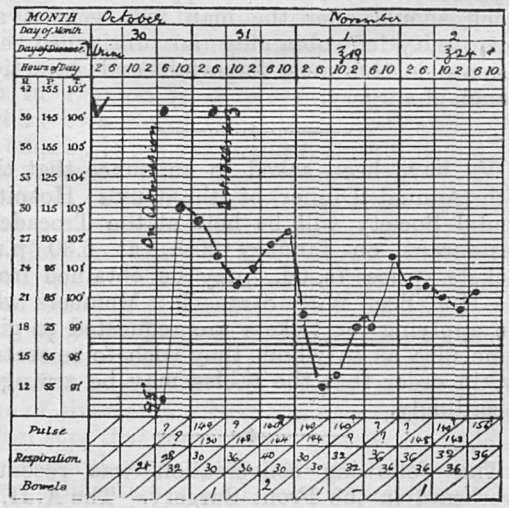
On admission the child was well nourished, but the lower extremities, vulva, and lower part of abdomen were œdematous, easily pitting on pressure. There was no redness or tenderness. "The general aspect," says the report, "is that of an exceedingly fat baby, but the fat pits on pressure." The abdomen was supple, and palpation did not cause any pain. The right arm was slightly œdematous. The urine contained no albumen or blood; the specific gravity was 1022. The temperature on admission was 101°, and continued high throughout, rising just before death to 106°. Dr. Cameron saw the case for Dr. Hertz, and regarded the absence of albumen as evidence that the case was not one of nephritis, and thought an œdema of alimentary origin could be excluded as the child had been breast-fed, and that the evidence pointed to an inflammatory œdema following the subsidence of an attack of erysipelas, a result of the abscess in the right mamma.

The child grew progressively weaker, and died on August 21st, four days after admission.

Post-mortem showed an early condition of general suppurative peritonitis which had given rise to no marked symptom during life, and had been unsuspected. The peritoneum had, no doubt, been infected by way of the lymphatics some time before death. The kidneys were normal. Cultivation from the heart and subcutaneous fluid by Dr. Goodhart gave a mixed growth of streptococcus longus and bacillus coli communis in each case. Cultivation from the peritoneal cavity gave a pure growth of streptococcus longus.

II.—Œdema occurring in the later stages of acute tuberculosis. W. O'G., aged 7 years, came to the Children's Out-Patient Department on October 30th, 1911,

Chart in Case II.



complaining of wasting and sickness, with œdema of the legs. Two months before he had attended St. Bartholomew's Hospital for a cough. His mother thought he had begun to grow thinner nine months before, but he had attended school until fourteen days ago from which time his acute illness dated. He

* Henoch's Lectures on Children's Diseases. 11th German Edition, 1903, page 41.

was extremely thin and wasted, with well-marked œdema as high as the knees. There were numerous purpuric spots, especially about the neck, indistinguishable from flea-bites. Abdominal examination showed an ill-defined mass in the right iliac fossa not particularly tender. Dr. Cameron examined the rectum, and was able to feel an indurated ulcer encircling the rectum two inches above the anus. He thought the case was one of tuberculous ulceration of the intestines, with wide-spread general tuberculosis, and that the mass in the abdomen was probably the cæcum indurated with tuberculous deposit.

He was admitted into Addison under Dr. Fawcett. The urine was found to be normal, containing no albumen, sugar, or acetone. While in the hospital his temperature was irregular, ranging from subnormal to 103°.

On post-mortem examination the following were found by Mr. Hunt:—Signs of old pleurisy, enlarged and caseous bronchial glands, tubercles and scattered tuberculous masses in the lungs, large and caseating mesenteric glands, two small tuberculous ulcers on the lesser curvature of the stomach, one in the duodenum, one small caseous mass in the liver, and one in the kidney, two caseating foci in the spleen, ten ulcers in the small intestine, six in the large, and the large ulcer felt in life 2 inches long and 1 inch in height, 2 inches from the anus, and the cæcum was one mass of ulceration.

III.—M. McD., aged seven years, admitted under Dr. Fawcett, August 6th, for œdema of legs and abdomen. Eighteen months ago he had rheumatic fever which left the heart affected. In March, 1911, he had paresis of right arm and leg with twitching of hand, and some difficulty in speaking. A diagnosis of chorea had been made at another hospital. Complete recovery with the use of the arm and the leg had followed. For some weeks before admission his legs had been œdematous.

On admission he was delirious and had incontinence of urine and fæces and œdema from his umbilicus downwards. A systolic bruit at the apex, traceable into the axilla, was audible. After prolonged examination of the urine, two hyaline casts were said to have been seen.

On August 11th twitching of the right arm was noticed. Mr. Ormond found optic neuritis in the left optic disc. There were enlarged glands in the neck. Dr. Fawcett discussed the diagnosis of general tuberculosis and of infective endocarditis. Before death on August 17th the œdema suddenly disappeared.

At the autopsy, performed by Dr. Cameron, there was a tuberculous caseating nodule the size of a cherry on the parietal lobe on the left side, posteriorly to the lower end of the fissure of Rolando. There was general miliary tuberculosis and much ulceration and infiltration of intestine; in the lower part of the ilium the wall was thickened, stiff, and rigid, and surrounded by enlarged caseating glands. Three or four cauliflower vegetations were found on the mitral valve. A guinea-pig (300 grms. weight) was inoculated subcutaneously with a portion of the vegetation on August 25th. Dr. Goodhart reported that the guinea-pig died on October 2nd weighing 210 grms. The local lesion was the site of a large undermined ulcer, the inguinal, sternal, mesenteric, and axillary glands on both sides were large and caseating. The spleen was dotted over with large caseating bosses. Tubercle bacilli were found in a smear made from the local lesion and the caseating glands.

The interest of the case lies in the unusual amount of œdema presented, as well as in the terminal tuberculous infective endocarditis, and in the simulation of chorea by the irritation of the left parietal lobe.

IV.—Œdema of alimentary origin. It is well recognised that following on acute diarrhœa and sickness, especially when the attacks are repeated or long continued, there may appear in children under two years of age an œdema which shows itself especially in the hands and feet, and which is commonly accompanied by considerable cyanosis of the same parts. Exactly in what particular the character of the food is unsuitable is not known. In some countries where the children of the poor are reared upon various carbohydrate preparations instead of milk, this œdema is extremely common. Among our own poor the use of a highly sweetened preserved milk may, in like manner, predispose to it, especially if malt is added to the diet in the hope of improving the wasting. A return to a milk diet will bring about rapid improvement.

Ada M., aged 2 years, was brought to Children's Out-Patients on November 17th, 1911. She was breast fed until 12 months old. During the summer she suffered severely from diarrhœa and sickness; since then she has wasted. Details of her diet were extremely difficult to obtain, but it seems that after weaning, she was fed on a mixed diet, and had only a little milk. Malt had been prescribed on one occasion. The child appeared to have been much neglected. Although the diarrhœa has ceased, the child has been unhealthy since. Two weeks before her attendance at Out-Patients her feet became swollen. This disappeared after a week for two days, but returned, not only in her feet and legs, but also in her arms and face.

On examination at Out-Patients the child was wasted with œdema of arms, legs, and face, and marked cyanosis of the extremities. When roused and crying, nothing abnormal could be seen in the child's breathing, but when left for a few moments undisturbed, the child's face became vacant and expressionless, her eyes fixed on the distance, and she became increasingly cyanosed, and her loud breathing of Cheyne-Stokes' type was audible to everyone in the room. On rousing the child, she waked as if from sleep and began to cry, the apnœic periods disappeared, and her pink colour returned. No specimen of urine could be obtained.

She was admitted into Clinical under Dr. Pitt. In the ward the dyspnœic attack was repeated once only. After a hot bath this symptom completely disappeared. On the child's buttocks were numerous necrotic spots of echthyma gangrenosum. The most marked area was in the region of the napkin, and there the ulceration was deepest. It had also spread on to the back and abdomen. The spots at their commencement bore a very close resemblance to chicken-pox, but they rapidly became dry and covered with an unhealthy scab with considerable ulceration of skin around. The child was placed upon a milk diet, and made a rapid improvement. The urine was free from albumen. The patient is still in the ward.

Unfortunately the urine was not obtained for examination until the child had been on a milk diet for 24 hours, so that it is not possible to say whether or not an alimentary glycosuria was present.

V.—Eva B., aged 14 months, may be cited as a further case illustrating the above points. She was breast-fed until 7 months of age, when her mother had to go to work and she was weaned. She was then fed on a well-known brand of sweetened condensed milk, bread and butter and boiled bread. Two months ago she contracted measles, and diarrhœa and sickness followed. After a few days the sickness ceased, but the diarrhœa has continued ever since. She was treated with malt by a doctor for her wasting. Six weeks ago she became œdematous.

On examination she was very emaciated, and her legs were cold, blue, and œdematous. Her stools were loose, but yellow in colour. The malt which had been prescribed was omitted, and a pure milk diet ordered. Four days later the diarrhœa was much better, and only slight œdema of the legs was present. After a week the œdema had disappeared and the diarrhœa had ceased, and the general condition had improved.

F. A. D.

NOTE.—The child died on December 7th. Some days before death an empyema had developed and during the last week of life the œdema had returned, this time mostly in the arms. At the autopsy no cause was found for the œdema.

Guy's Hospital Choral Society.

The Society's usual before-Christmas concert was held in the Physiological Theatre, on Tuesday, December 12th. There was a somewhat meagre audience, though the excellence of the concert deserved a far better one.

Sir Charles Villiers Stanford's choral ballad "Phandrig Crohoore," was the *pièce de resistance* of the evening. Perhaps the chief charm of this work is in its vivid contrasts, ranging from the dramatic musical description of Phandrig's sudden entry, to the beautiful appeal of the air for the basses beginning "Kathleen Bawn, is it true what I hear?," or the peacefulness of the concluding section with its oft-repeated phrase: "An' the green grass is growing over Phandrig Crohoore." Chorus and conductor are to be congratulated on their admirable rendering of a work which is by no means easy of execution. The tone of the sopranos and contraltos was good throughout, and the men also, in spite of their small numbers, did very well. The attack was good, and all parts took up their leads decisively and clearly.

Of the part songs the most effective were Wood's "When Young Leaves are Springing," and Dunhill's "A Lake and a Fairy Boat," the latter especially was sung with charming lightness and delicacy. The performance of the male part songs "Coronach" (C. B. Rootham) and "The Sword" (Charles Wood), was undistinguished except for the singing of the solo part in the latter, which was in Mr. Carey's best style, but the insufficiency of the chorus was evidenced by a woeful lack of vigour.

The old English airs "The Sheep Shearing" (arranged by Cecil Sharp), and "Early one Morning" (arranged by T. F. Dunhill), were excellently sung by Nurses Oliver and Macmanus, and Messrs. Carey and G. A. Blake. Nurse Oliver sang the soprano parts charmingly, and the others maintained a judicious balance. In the quartets, "The Nun" and "Barcarolle," by Brahms, the parts were doubled; the second was the more successful, and was very pleasing. Sterndale Bennett's trio, "To a Nightingale at Mid-day," was well sung by Nurses Fletcher, Quin, and Millar.

Mr. Carey's singing is always delightful, and he was quite at his best in two old Irish airs "When in Death" and "Eva Toole," which provided an effective contrast. Nurse Fletcher sang Goddard's "Berceuse de Jocelyn," with the expression it demands, but her intonation was sometimes faulty; she was heard to much better advantage in the same composer's "Chansons de Florian," which she gave as an encore.

Mr. H. Thompson made an excellent first appearance at these concerts in "The Omen," and "Rolling down to Rio," and the latter was enthusiastically encored. Mr. Thompson has a fine baritone voice, which we hope to hear again. We have often enjoyed Nurse Millar's singing, but we have seldom heard her in better voice than in "The Enchantress." Her encore was a delightful Irish song, delightfully sung.

The Choral Society is indeed fortunate in having for its accompanist such an experienced musician as Mr. Depree; both in the choral works and the solos he was admirable, and if we may pick out one item for special commendation, it is his playing of the accompaniment to the trio; his trills were a joy.

Our thanks are due to Mr. Carey for providing an excellent programme, and carrying it out so successfully. He must have had considerable difficulty in producing a satisfactory balance of tone in a chorus with such a deficiency of tenors and basses, but although the lower parts were occasionally overpowered, this defect was not often noticeable. It is to be hoped that this shortage of male voices may be remedied before the next concert.

Pupils' Physical Society.

The Fifth Meeting of the Session was held on December 13th in the College. Mr. Marshall was in the chair, and 133 members were present. After the minutes of the previous meeting had been read and confirmed, the chairman called upon Mr. Lane to open a discussion on "Bonesetting."

Mr. Arbuthnot Lane: Mr. President and Gentlemen,—When your Secretaries did me the honour of asking me to open this discussion, I gladly acceded to their request, though I was in great doubt in my own mind as to what was meant by the subject of the discussion, namely, "bonesetting." After thinking the matter over, I concluded that "bonesetting" covered all treatment of injuries to bones, muscles, and joints which was not operative. The term "bonesetting" has usually been applied to the practice of a man who has had no surgical training, but who has acquired, probably by the use of common-sense—that most valuable of all assets—some familiarity with the functions of the joints, and who has profited by the inexperience of the profession, and of the tendency which exists amongst its members of adhering blindly to creeds whose only claim to consideration is their antiquity. It used to be supposed that when a bone was broken, the fragments were retained in faulty positions by the spasmodic contraction of muscles, which lasted for varying periods according to the view of the particular surgeon, and rarely exceeding several hours. It was taught that once this spasm had subsided it was possible for and that it was the duty of the surgeon to replace the fragments in accurate apposition. This having been apparently effected to the satisfaction of the surgeon, the limb was then fixed immovably in splints or in a plaster of Paris or other rigid casing. When the retentive apparatus was removed, the joints were usually found to be rigid, and a great deal of manipulation had to be employed, and severe pain experienced by the patient before any mobility of the part was obtained. In the case of the hospital patient the rigidity usually remained, since there was no means of obtaining massage for poor people. They went from bad to worse and developed progressive degenerative changes in the affected joints, which I called chronic mechanical or traumatic arthritis, and which vary in character with the age of the individual. These changes after middle life are distinctive in character, and tend to the further damage of the joint and the depreciation of its functions. These cases came into the hands of the so-called bonesetter, who, by the employment of sufficient force, broke down the adhesions within the joint and in the tissues outside it, and very frequently gave the patient a mobility which was most striking. The surgeons at Guy's learnt many years ago that the displacement of the fragments of a broken bone resulted from the violence that produced the injury, and that the obstacle to the restoration of the bone to its original form was the shortening up of all the tissues surrounding the bone by laceration of and hæmorrhage into those soft parts, and later by their inflammation which exaggerated the shortening. The muscles and other soft parts were practically ties in the length of the limb. Attempts were made by us to overcome the resistance of these shortened ties by the exercise of great strain upon the limb for a long period, but at that time this method failed because there were no means of determining the relative positions of the fragments or of controlling them. The subsequent discovery of X-rays has enabled surgeons to reintroduce this method of prolonged severe extensions, and by controlling the displacement of the fragments, both laterally and by tension, to bring the ends of the broken bone into very fair apposition. This treatment is most successful in the case of the femur and the upper parts of the tibia and fibula. The method, which is usually regarded as Bardenhauer's, has met with much appreciation and success on the Continent. It requires great attention, care, and skill on the part of the surgeon, and a frequent resort to radiography. By its application the fixation of joints is avoided. Its effective application is, however, limited to certain bones, though Bardenhauer employs it in every fracture. Failing to obtain accurate apposition of fragments before the discovery of X-rays, we proceeded to do what was then considered a most immoral and wicked thing, namely, to cut down on the fracture, to restore the bone to its original form, and to retain the fragments securely in position by means of wire and screws, and more recently by screws and plates. The fixation of the fragments rendered it unnecessary to immobilize the joints, so that by this procedure the skeleton was restored to its normal form and the functions of the joints were not impaired. While such a treatment can be carried out to perfection in private practice, or in a children's hospital where the patient is completely under the control of the resident staff, it is not so easy in a general hospital where the patient may escape the observation of those sufficiently skilled to look after him till he is perfectly well. While travelling on the Continent during the last month, I found that the general tendency of surgeons there was to treat fractures of the femur and the upper part of the tibia by extension after Bardenhauer's method, and to operate on most other fractures if there was much displacement. In contrast with the treatment of Bardenhauer, we have the method employed by that distinguished French surgeon, Lucas Championiere. He does not worry so much about obtaining accurate apposition of fragments, but starts at an early period to obtain free mobility of the joints and muscles about the fracture by means of active and passive movements, and by massage. We have found this method very useful in such cases in which the extent of com-

minution or the extreme brevity of the compact tissue from alcohol or old age it would be impossible to secure the fragments by means of wire or screws. I might just remind you of the very deleterious influence which alcohol exerts in rendering the bones very fragile by reducing the thickness, rigidity, and density of their compact tissue. In the United States, on the other hand, the surgeons had readily familiarized themselves with the more perfect asepsis requisite for such operations, and had obtained such instruments as facilitate the replacement of fragments, and their results were far better. Speaking generally, I should say the technique of the American surgeon is better than that which exists in any other country. The restless spirit of the Westerner, combined with an intense desire to learn, is a driving power that is unequalled in the old world, and cannot but command one's admiration, and, I trust, our imitation. I would urge you to render yourselves thoroughly familiar with the general principles underlying these several forms of treatment. Avoid such a study of detail as would warp your mind and cause you to follow slavishly any particular method, but keep your eyes open to the advantage of each, as no method is universal in its application. Gentlemen, while I feel that my knowledge of bonesetting, in the sense that the term is usually regarded amongst us, is limited, I have been sufficiently fortunate as to induce my friend Mr. Frank Romer to come here and tell you his views on the subject of bonesetting. What he does not know about bonesetting is not worth knowing, and his success in the treatment of his cases is a matter of common knowledge. He has studied the methods of the unqualified bonesetter, and has extracted from them that which is most valuable, and has blended them with a thorough knowledge of surgery and pathology.

MR. ROMER: Mr. President and Gentlemen,—There is no doubt that for many centuries the so-called art of bonesetting has been in existence in country districts, where its traditions have often been handed down and practised by the same families for generations. Anyhow, in 1665 a book entitled "The Compleat Bonesetter" was published, written by a man named Turner, whilst even as far back as 1736 an agitation was started in the public press, and the *London Magazine* in August of that year gives a long description of the cures wrought by a Mrs. Mapp, a bonesetter at Epsom. So notorious did she become that a comedy was written about her in which the doctors of the day were held up to ridicule for their inability to understand her treatment. Perhaps the best-known exponent of latter years was Richard Hutton, who, himself the descendant of a long line of Yorkshire bonesetters, after his retirement from the business of upholsterer in the Tottenham Court Road, resumed the family calling in London, where he speedily gained a world-wide reputation. On the occasion of his death in 1871, *The Lancet* said of him: "successful he certainly was, and it were folly to deny it, in some cases which had baffled the skill of the best surgeons." From these words we may infer that in spite of Sir James Paget's Lectures on Cases the Bonesetters Cure, published in 1867, nothing was really understood by the profession at large about this method of treating joints whose utility was impaired by adhesions, and it was not till the end of 1871, when Dr. Whorton Hood had published in *The Lancet* his articles on "Bonesetting: so-called" that full understanding came. From this time forward many surgeons adopted with satisfactory results similar or modified principles in dealing with these cases, and the mystery of what may be termed old-fashioned bonesetting was solved. The question now arose in the minds of the profession how best to prevent the necessity of forcible manipulations, and since it was obvious that the treatment then in vogue of absolute and physical rest in all cases of fractures and sprains was much to blame, greater attention came to be paid to the immediate treatment of such injuries, and efforts made to shorten the period of enforced rest. Gradually the employment of splints and stiff bandages in all cases was modified, whilst massage and passive movements became more generally adopted, with the result that the period of disability following injury was considerably curtailed, and it became more and more rare to find a joint absolutely crippled with simple adhesions. During the last few months, however, a considerable amount of correspondence has again taken place on this subject of bonesetting, and certain inspired articles have appeared from time to time extolling the miraculous cures achieved by its gifted professors, who still claim that they employ methods which are either unknown or ignored by the medical profession. Though the medical journals have on more than one occasion given proof that such assertions are not now fully justified, little notice is taken, and the impression still remains among laymen that either this method is due to some mysterious gift or that medical men are too conservative to learn. The latter statement, I venture to state, contains a modicum of truth. In spite of the lesson received in 1871 that there was perhaps something to be gleaned from these unqualified practitioners, the general opinion existing to-day amongst the profession is that there is nothing fresh to learn on the subject. Such, however, in my opinion, is erroneous, for though the surgical treatment of recent injuries has made immense strides since 1871, bonesetting has not stood still either, but has adapted itself to the "after condition" existing to-day, which, even after the most modern treatment by massage, radiant heat, and electricity, often leaves much to be desired in the way of cure. For though, as I have stated, in these days of early movement, complete ankylosis is rare compared with the time

when absolute rest was considered essential for the treatment of bone and joint injuries, it should be borne in mind that a joint need not be entirely incapacitated by adhesions to require manipulation. Hence, it frequently happens that the possibility of some small adventitious band is not suspected provided the joint moves with comparative freedom, and it is especially in these cases that the modern bonesetter proves so successful. Careful examination in such cases will reveal a painful though comparatively slight interference with the normal range of movement, to cure which forcible manipulations will be often just as necessary as in a joint whose action is entirely lost. Doubtless many cases affected in this way might eventually recover by other means, but the facilities of radiant heat and massage are not easily come by in country places, and are, moreover, expensive, whilst treatment by means of "bonesetting" is usually simple and effective once the principles of the manipulations have been grasped. Contrary to the popular belief that some mysterious gift is essential for their successful performance, there is nothing to prevent any practitioner doing them with success, provided that care is taken to ascertain the particular lesion that exists. A certain delicacy of touch is doubtlessly requisite to appreciate properly that lesion, whilst the correction of it largely depends on knack, but both can easily be acquired by experience and practice. Where perfect recovery from the effects of trauma is unduly delayed, time is too often considered the only solution of the difficulty, whilst the patient is frequently regarded as being fussy or possibly neurotic. When tired of this disability, he seeks unqualified advice. His cure by the aid of bonesetting must not be regarded as suggestion, but should be recognised as a form of treatment likely to prove a very useful adjunct to professional knowledge and of immense value in the hands of a practitioner who, by his scientific training, will refrain from indiscriminate manipulations, and thereby avoid the pitfalls into which the bonesetter is so liable to fall. In short, as Hutton, Bennett, Mason, etc., gained their reputations at the expense of a previous generation of medical men in their treatment of totally ankylosed joints, so do their modern successors gain kudos in cases in which some minor disability follows the orthodox treatment. Now it is possible that methods generally employed in treating joint and bone injuries are not yet far enough advanced to avoid the possibility of any adhesions being left behind, and the future may eventually bring this about, but until this ideal result shall be obtained, I think that every medical man should make himself acquainted with the manipulations necessary for the different joints, as much for his own protection as the benefit of his patient, since many a practitioner has had to regret loss of prestige at the hands of the local bonesetter and find him an opponent by no means to be despised. In my student days we were taught the pathological aspect of fibrous ankylosis and the possibility of its occurrence, but beyond the recommendation to break them down, no information was given or demonstration shown how best to accomplish this feat. It so happens that I have since had the opportunity of seeing and treating a very large number of these cases, and I find that the technique is not so simple as might at first appear. Now there are certain broad principles to be observed in manipulating all cases, but the adhesions will be found to vary in position according to the joint affected, and each joint therefore requires its own special movement, whilst the after treatment is of the utmost importance. These various points are known to the successful bonesetter, who by experience is enabled to determine the seat of the lesion and rectify it in a manner which is not clearly understood by the medical man who, with his greater surgical knowledge has either never applied himself seriously to treatment of these small and apparently trivial after-effects of injury, or has not seen a sufficiency of suitable cases to make himself *au fait* with its procedure. Anyhow, whatever the cause may be, the fact remains that not only in the country, but in London itself, bonesetters are still enabled to successfully treat cases by methods which the practitioner himself should have been capable of undertaking.

Mr. STEWARD, after expressing the interest with which he had listened to Mr. Romer's remarks, and his admiration for his courageous attitude in mastering the methods of the bonesetters, proceeded to insist on the necessity for admitting that bonesetters did, time and again, obtain successful results in cases where a medical man had failed completely. The treatment of these cases was a discredit to the profession, and in most cases due to a want of proper care. Why did cases fall into the hands of the bonesetter? Chiefly for two reasons: First, there was in bonesetting an element of the miraculous, and there has always been a fair proportion of the public who crave after miracles; and secondly, because there were many cases which were unsuccessfully treated by the medical man which drifted as a last resort to the unqualified but more enterprising man. There were two classes of bonesetter: The quack, pure and simple; he had merely a temporary vogue, and did very little good. He might be described as the poor man's bonesetter, and his methods were really those of faith-healing; he was a blessing to the half-penny press, and nothing much more. The statements made by this class were quite impossible to believe, for they not only pretended and professed most miraculous cures, but they also put forward statements of fact which could easily be demonstrated as untrue. The second class, who might be called the rich man's bonesetter, consists of quite a different type. He succeeded. He was no philanthropist,

for bonesetting was a concern that paid. He was obviously successful; he had his failures, but so had we all, and the bonesetter was not to be judged by his failures. The fact of his great success was obvious proof that his treatment was far more often a success than a failure. The failure of the medical profession was due to a lack of study of the conditions present and of the methods used by bonesetters. Bonesetters knew perfectly well that there were limits to what they could do. Medical men probably showed much too much temerity in dealing with these conditions, and a case was instanced of a man with "golfer's elbow" that was treated by rest on a splint and massage. In spite of consultation with three eminent surgeons no improvement resulted after three months. The patient got tired of it, and went to a bonesetter. Something was done under gas—an anæsthetic—and within one month the patient had a perfect arm, and was playing golf freely. He hoped that more men like Mr. Romer would come forward and take the place of the bonesetter.

Mr. ROWLANDS began by subdividing the subject under discussion into four classes: injuries to bones, joints, muscles, and tendons. With regard to the first class, he remarked that Mr. Lane was probably the only perfect bonesetter, but even after employing his methods, we had still to follow up with the methods of the bonesetter in order to get a perfect result. We were too apt to think that if the separated ends of a bone were in perfect apposition all must necessarily go well, and it was a common sight when a fracture was being set to see the sound limb of the opposite side lying hidden beneath the blanket. A perfectly straight limb was not necessarily the ideal result; in fact, in the case of the lower extremity this might cause a definite limp, the normal condition being slightly varus. In considering the great success obtained by bonesetters, it must be remembered that they advertised freely, and it was generally admitted that nowadays nothing succeeded like advertisement. Although agreeing with Mr. Steward in the uselessness of denying the success that they obtain, he thought that a large number of their failures were buried; people disliked to confess that they had been to a bonesetter, and at Out-Patients a previous visit to a bonesetter was often overlooked unless the question were asked direct. Some of the successes were undoubtedly due to suggestion, and in this connection it was desirable to notice the very great help given by an anæsthetic. We were, as a rule, much too frightened to give an anæsthetic in after-treatment.

Mr. LAYTON first spoke of the importance of suggestion in the cases under discussion, and pointed out that the bonesetter by his partial knowledge was able to take up that dogmatic standpoint which alone can impress the patient, but which the medical man with his knowledge of possible complications finds a difficulty in assuming. He insisted on the absolute necessity of concealing from the patient any doubt there might be in one's own mind, and pointed out the great advantages enjoyed by men working in a hospital, in that they possessed such additional aid to accurate diagnosis as was afforded by X-ray examination. He then cavilled at Mr. Romer for his use of the word "adhesions," and asked whether there was any pathological evidence of fibrous adhesions passing from one joint surface to another—the class of cases under discussion? He himself believed that true fibrous adhesions never occurred in the cases that were amenable to the bonesetter. Finally, he recounted two cases in which he had done great harm by applying passive movements too vigorously in conditions entirely unsuited to its use.

The CHAIRMAN, after thanking the previous speakers for the brilliant way in which they had opened the discussion, reminded the meeting of two cases which had more or less recently been engaging public attention in the Courts of Law, and suggested that the meeting would like to hear Mr. Sandison's views on the ethical side of the question.

Mr. SANDISON objected to being accused of the outrageous views with which the Chairman had charged him, and upheld most strongly the result of the action in the Courts. Qualified men have been through a long course, and have passed examinations which ensure that they have had a broad view of the subject. Was anyone to be entitled to meddle with the human frame? Often it was a matter of life and death, and in matters of such great import it was imperative that medical men should put their foot down on unqualified practice. It should also be remembered in connection with any form of faith-healing that this may do much harm and no good.

An excellent discussion followed in which many members took part. At the close of the proceedings Dr. Mann proposed a vote of thanks to Mr. Lane, Mr. Romer, Mr. Steward, Mr. Rowlands, and Mr. Layton for their kindness in coming down to take part in the discussion. The vote was seconded by Mr. J. G. Saner, and was carried by acclamation.

More Days in the I.M.S.

ONE of the attractions of the service to which the writer has the honour to belong is the infinite variety of work which he may be called upon to perform, or from which he may, to a certain extent, choose according to his bent. Besides the well-known Regimental and Civil Surgeoncy branches, the I.M.S. man may become a professor at one of the medical colleges, and enjoy all the kudos and benefits that appertain to such appointments out here as at home. He may travel far afield in the Political Department, or lead a sailor's life as surgeon-naturalist to the Survey Department; he may become a State chemist or assayist, or spend his days with the multi-

tudes of micro-organisms in the Bacteriological Department. He may specialise in plague, rabies, or malaria, and hold a roving commission in the latter branch over a territory nearly as large as England, or he may study the care of children as medical officer to one of the big Government schools at a hill station.

All these, in addition to medicine, surgery, midwifery, ophthalmology, sanitation, and the prevention of disease, etc., are open to the medical man who joins the I.M.S., and many days out of their lives (both at work and play) have already been described in the columns of the GUY'S GAZETTE by the facile pen of Captain Hugh Watts.

There is, however, still another branch that has not yet been mentioned, but which, owing to its size and importance, ought to be known to all who may be thinking of joining the Service, and that is the Jai Department. This may not sound attractive to those just finishing a strenuous hospital career, but it possesses many advantages. Of these may be mentioned especially an increased rate of pay, coupled with a free and usually excellent bungalow and a fairly settled home. Also the I.M.S. officer is far more his own master as a Jail Superintendent than he is when in military employ, and there are many opportunities not only for good surgical and medical work, but also for the exercise of talents in many other directions.

A central jail consists of 1,000–2,000 convicts, with the necessary establishment of officials and warders, and many a practitioner in England cannot claim to have as large a number as this to look after even in a medical capacity. But to the superintendent of such a jail the medical work is only one part of his duties; he is also responsible for the sanitation of the jail, for the food and clothing of the inmates, for their daily tasks (which must include a working knowledge of many and varied trades), and for their discipline. The latter means a constant study of the native mind and character, and watchfulness against crime, the trial of all breaches of law and discipline, and the suitable punishment of the guilty parties.

All these duties involve a great deal of responsibility, and every anna of the increased pay is more than earned.

While the care of a large jail usually absorbs every spare minute of the Superintendent's time, there are smaller jails to the care of which subsidiary duties are attached, such as the Civil Surgeoncy of the neighbourhood, or possibly a lunatic asylum. Superintendents also are not debarred from private practice, and their permanent position in a place enables them to secure the confidence of the native inhabitants, a confidence which is always a necessary preliminary to obtaining lucrative patients.

An appointment involving both jail and civil surgeoncy work I hope to describe in a future letter; in this, I will conclude by detailing briefly the main items of a Jail Superintendent's day.

Up at, say, 5.30–6 a.m., he will arrive at the jail about seven o'clock, and the free warder guard will turn out to salute and be inspected. If it is the usual weekly kit inspection day he will visit all the blocks of the jail, examining the kit and appearance of each convict, hearing petitions, examining into complaints, picking out sickly individuals for weighment or hospital treatment, and investigating the sanitation of the jail. He will then walk through the gardens, factories, and workshops, watching the convicts at their tasks, encouraging the keen ones, spurring on the lazy, and discussing the while with his subordinates various means of improving the plant increasing the profits, and lessening the cost of production.

On reaching the hospital he drops the rôle of manager of a large commercial concern, and becomes, as of old, the keen surgeon or physician. A few fever cases await microscopical diagnosis, a few dysentery patients are injected with vaccine, an operation, a head injury from an assault, a row of skin cases, and a few malingerers delay him for a while, and then the hospital "returns" are written up and the Superintendent goes back to his office. Here there is awaiting him a row of convicts for trial, their possible offences being too numerous to mention. The guilty ones are suitably punished with periods of fetters, handcuffs, separate confinement, and so on, and then the storekeeper or jailor comes along with a pile of books and papers relating to the trades and supplies generally of the jail.

Lastly, the varied correspondence appertaining to such a large establishment is dealt with, and the Superintendent returns about 1.0 p.m., hungry and tired, to his morning meal.

If he is wise he will keep the rest of the day as free as possible from jail work, but extra duties, such as surprise visits at the time of the evening meal or matters of urgency, are always liable to claim his attention. Time for recreation in the cool of the evening can usually be obtained, and every man should have one or more hobbies (medical or otherwise) to prevent him from becoming narrow-minded, but the fact that the writer has been over a year in fulfilling his promise to the Editor to write these few notes shows (not that he is lazy, much as it may appear so), but that very little time is left for outside interests, important though these are.

There is one consolation to a Superintendent who feels that his jail work absorbs all his time and thought, and it is that the work in itself is so varied, and that there is always the possibility of a mild excitement, such as an attempt at escape or suicide, an assault (on himself or his staff) or even a rising in the jail. I know one jailor, who in his younger days was a well-known boxer in a British regiment, who has lived for years in almost daily hope of a "bit of a scrap," but this hope, luckily, does not make him relax in the least his vigilance in the detection of signs and symptoms of discontent or insubordination. That the most competent of Superintendents may have to face a sudden rising was shown last year, when Lt.-Col. Jennings, I.M.S., had to suppress an "emeute" at Fategarh, in the course of

which about fifty convicts were killed or injured. Similarly, at some jails in unhealthy localities, the Superintendent can never feel sure on retiring to rest at night that he will not find an epidemic of cholera or plague in full swing in the morning.

F. A. B.

Mr. Bernard Shaw on Doctors.

By L. A. PARRY, M.D., F.R.C.S.

Mr. Bernard Shaw's play, "The Doctor's Dilemma," has attained a good deal of notoriety, and is especially interesting to the Medical Profession on account of the subject with which it deals. The play itself is, like most of his dramas, exceedingly clever, full of epigram and paradox, and with it there can be no quarrel. But with the introduction, matters are different: it is nothing but a long diatribe against the profession, a bitter and unfair attack on doctors, an attack absolutely unjustifiable, full of prejudice, gross inaccuracies, and obvious misstatements, an attack altogether unworthy of Mr. Bernard Shaw's great intellectual attainments.

Space will not permit me to deal with the whole of this criticism, and I propose to discuss only a few of the more important points raised. From beginning to end of this long preface, consisting of some eighty pages, Mr. Shaw accuses the profession of being actuated by practically nothing but the lowest motives in the management of their practice and in the treatment of their patients. They are mercenary, cruel, infamous, murderous, unscrupulous, and unscientific. They practice what they do not believe in order to make money. They advise those who consult them, not according to their skill and knowledge, but simply to please them and keep them as patients, and so on and so on, through pages and pages of similar invective. To show that I am not exaggerating I quote a few typical passages. "I do not know a single thoughtful person who does not feel that the tragedy of illness at present is that it delivers you helplessly into the hands of a profession which you deeply mistrust, because it not only advocates and practises the most revolting cruelties in the pursuit of knowledge, and justifies them on grounds which would equally justify practising the same cruelties on yourself or your children. . . . ." "It is simply unscientific to allege or believe that doctors do not under existing circumstances perform unnecessary operations and manufacture and prolong lucrative illnesses." "They pay unnecessary visits: they write prescriptions that are as absurd as the rub of chalk with which an Irish tailor once charmed away a wart from my father's finger: they conspire with surgeons to promote operations: they nurse the delusions of the *malade-imaginaire:* they exploit human folly, vanity, and fear of death as ruthlessly as their own health, strength, and patience are exploited by selfish hypochondriacs."

These vilifications could be extended *ad nauseam*, but no useful purpose would be served thus. Even suppose some of the milder criticisms are accurate as applied to a few members of the profession, is it just or proper to draw generalizations from the misdeeds of a few? There are, of course, black sheep in every profession, even in Mr. Shaw's own, but to contend seriously that medical men as a body will deliberately perjure themselves in the witness box, that they will descend to any trick, even to performing unnecessary operations to obtain fees, that they are untruthful in their statements, that they are revoltingly cruel; in short, that there is no crime, no meanness, no dishonest act they will stop at, is nothing more nor less than an infamous and disgraceful slander.

I should like to deal a little more fully with a few of the special subjects of attack made by this eminent writer against our profession, such thorny questions as Vaccination and Vivisection amongst them. Now, Mr. Shaw has, of course, a perfect right to be an Anti-Vaccinationist and an Anti-Vivisectionist: this is a free country, and everyone is entitled to his own opinion. Neither I nor any other man thinks that he holds his views on these subjects from the lowest, basest, vilest, and most mercenary motives: we deal more fairly with him than he does with us. We believe he has written all this nonsense because, holding very strong views on these matters, he has allowed his emotion to overmaster his intellect. But for this fact the preface would never have been written.

Let us take the vaccination question first. Mr. Shaw's attitude towards this matter is a perfectly honest one: he is an open and frank unbeliever in the process. But his prejudice and venom make him not only grossly unfair to those who advocate it (and they constitute the enormous majority of the medical profession, and the vast bulk of educated men), but also lamentably inaccurate in his statements concerning it. Take for instance his account of the preparation of calf lymph: "what you inoculate is simply undefined matter that has been scraped off an anything but chemically clean calf suffering from the disease in question. You take your chance of the germ being in the scrapings, and, lest you should kill it, you take no precautions against other germs being in it as well. Anything may happen as the result of such an inoculation. Yet this is the only stuff of the kind which is prepared and supplied even in State establishments: that is, in the only establishments free from the commercial temptation to adulterate materials and scamp precautionary processes." Compare this travesty with fact. The matter inoculated is not "matter scraped off a calf," but very carefully prepared lymph, prepared as Mr. John Burns showed in a recent answer to Mr. Duncan in the House of Commons, so thoroughly that "each calf, after vaccination and abstraction of the lymph from the vesicles, was sent to be slaughtered and was then carefully examined by a veterinary surgeon. The lymph was not issued for use unless the veterinary surgeon certified that the calf was free from disease. In addition to this primary precaution,

there was the further fact that the lymph was glycerinated, and it had been proved by the experimental addition of tubercle bacilli to vaccine lymph, that glycerine destroyed such tubercle bacilli. Before issue all lymph was bacteriologically tested and examined." Could anything be much farther from the truth than Mr. Shaw's account of the manufacture of calf lymph?

He attributes once again the very lowest motives to the members of our profession to account for their support of vaccination. "Naturally the poor doctor (that is the average doctor) defends ordinary vaccination frantically, as it means to him the bread of his children. To secure the vehement and practically unanimous support of the rank and file of the medical profession for any sort of treatment or operation, all that is necessary is that it can be easily practised by a rather shabbily dressed man in a surgically dirty room, in a surgically dirty house without any assistance, and that the materials shall cost say, a penny, and the charge for it to a patient with £100 a year be half-a-crown."

Is there a single intelligent or honest man in this country, beyond Mr. Shaw, who could possibly bring himself to swallow this farrago of rubbish? This is not the place to argue for or against vaccination; my point is that, whether right or wrong, the belief of the profession is an honest one; doctors are convinced that vaccination is a prophylactic against small-pox, and the mercenary aspect of the matter has nothing whatever to do with their attitude. Neither Mr. Shaw nor I can prove our beliefs and opinions: I am content to leave the public to judge between us, and have not the smallest shadow of doubt that, with a few negligible exceptions (for the most ardent anti-vaccination party whilst believing our attitude a mistaken one, are at least fair-minded and just enough to attribute decent motives to us) they will side with me.

In dealing with the relation of the medical profession to vivisection, a second instance of Mr. Shaw's indecent abuse is found. Now, I am almost as opposed to vivisection as he is, and I agree with him that on the whole very little has been gained by the numerous experiments made and repeated over and over again on animals. But I cannot possibly think that any man has a right to attribute to those who hold contrary views to himself such infamous and abominable motives as are attributed to the vivisectionists by the author of this work. I had thought that this was essentially the province of the politician, and not of the writer on science. Let me quote actual words to show that I am fairly describing the writer's attitude. "It seems unaccountable that they should . . . deliberately choose to band themselves publicly with outlaws and scoundrels by claiming that in the pursuit of their professional knowledge they should be free from the restraints of law, of honour, of pity, of remorse, of everything that distinguishes an ordinary citizen from a South Sea buccaneer or a philosopher from an inquisitor." "Once grant the ethics of the vivisectionist and you not only sanction the experiment on the human subject, but make it the first duty of the vivisector. If a guinea-pig may be sacrificed for the sake of the very little that can be learnt from it, shall not a man be sacrificed for the sake of the great deal that can be learnt from him? At all events he *is* sacrificed . . ." "It is hardly to be expected that a man who does not hesitate to vivisect for the sake of science will hesitate to lie about it afterwards to protect it from what he deems the ignorant sentimentality of the laity." "The men whose business it was to discover new clinical methods were coarsening and stupefying themselves with the sensual villainies and cut-throat's casuistries of vivisection."

Whatever the ethics of vivisection, whatever moral view of it we may take, those who follow the practice are certainly not heartless brutes, indifferent to the suffering they inflict, and actuated by the lowest motives. I should like to see the practice much more restricted than it is, and experiments on animals only permitted under the most exceptional circumstances, but I am capable of judging fairly those who differ from me; Mr. Bernard Shaw is not, and I am again content to leave the public to judge, and again have no doubt as to the verdict.

One of the few paragraphs in this preface which is not occupied in vilifying doctors is worth quoting, for in it Mr. Shaw has returned to sanity. "On one occasion I was invited to speak at a large anti-vivisectionist meeting at the Queen's Hall in London. I found myself on the platform with fox-hunters, men and women whose calendar was divided, not by pay-days and quarter-days, but by seasons for killing animals for sport: the fox, the hare, the otter, the partridge, and the rest having each its appointed date for slaughter. The ladies among us wore hats and cloaks and headdresses obtained by wholesale massacres, ruthless trappings, callous extermination of our fellow-creatures. We insisted on our butchers supplying us with white veal, and were large and constant consumers of *pâté de foie gras:* both comestibles being obtained by revolting methods. We sent our sons to public schools where indecent flogging is a recognised method of taming the young human animal. Yet we were all in hysterics of indignation at the cruelties of the vivisectors. These, if any were present, must have smiled sardonically at such inhuman humanitarians, whose daily habits and fashionable amusements cause more suffering in England in a week than all the vivisectors do in Europe in a year. I made a very effective speech, not exclusively against vivisection, but against cruelty, and I have never been asked to speak since by that society." I look upon these words as about the finest that Mr. Shaw has ever penned.

I have dealt rather fully with the two subjects of vivisection and vaccination, and space will not permit me to touch at great length on other matters equally inaccurately described, but one or two must be quoted. Take for instance the attempts being made by sanitarians to induce the public to abstain from indiscriminate expectoration. Mr. Bernard Shaw's account is as

follows: "All through Europe people are adjured by public notices, and even under legal penalties, not to throw their microbes into the sunshine but to collect them carefully in a handkerchief; shield the handkerchief from the sun in the darkness and warmth of the pocket and send it to a laundry to be mixed up with everybody else's handkerchiefs, with results only too familiar to local health authorities." What a traversity of truth! Comment is superfluous.

Again, in referring to hydrophobia. "On me, therefore, the results published by the Pasteur Institute produced no such effect as they did on the ordinary man who thinks that the bite of a mad dog means certain hydrophobia. It seemed to me that the proportion of deaths among the cases treated at the institute was rather higher if anything than might have been expected had there been no institute in existence. But to the public every Pasteur patient who did not die was miraculously saved from an agonizing death by the beneficient white magic of that most trustworthy of all wizards, the man of science." Anyone who has studied the methods and the results of the Pasteur Institute knows that the risk of death from that awful disease, hydrophobia, is immensely minimised if the patient is put under early treatment after the bite of a mad dog. Sir William Whitla, the eminent Belfast physician, only states what is known to all who care to get at facts when he says "The success of the treatment is established beyond all possibility of doubt, and the mortality of persons bitten by rabid dogs and in the more fatal inoculations received by wolf-bites, has been reduced to about one in four hundred, instead of a death rate of one in four or five, or less, which is to be expected when wolf-bites are included. Hence many thousands of lives have been saved in the Paris institute and in the similar institutions now established in other countries." Another excellent example of fiction (Mr. Shaw's account) and fact (Sir William Whitla's).

I have attempted to show, and I think successfully, that the attack made on the medical profession in this preface is an absolutely unjustifiable one. It is scandalous, inaccurate and untrue, and the moral is that however eminent a man may be, when once he is badly attacked by prejudice, his views and statements are of no value and utterly untrustworthy. This book is an unworthy piece of work, but I believe by its excesses and virulence it can do but little harm to a body of men, which, I am convinced, in spite of all Mr. Shaw has written, was never held in more esteem than at the present time.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

Papers by Guy's Men.

H. Barber, M.D. Lond., Assistant Physician, Derbyshire Royal Infirmary; late Medical Registrar, Guy's Hospital: A Note on Paroxysmal Attacks of Dyspnœa occurring at night in Heart Disease.—*British Medical Journal*, 16th December, 1911.

E. C. Hort, F.R.C.S. Edin., and another: The Danger of Saline Injections.—*Ibid.*

Major E. M. Pilcher, F.R.C.S., D.S.O., R.A.M.C.: The Pointed Bullet.—*Journal of R.A.M.C.*, No. 6, vol. xvii., December, 1911.

Geo. Steele-Perkins, M.D., Physician to the Actors' Orphanage, etc.; The Treatment of Lateral Curvature of the Spine by Exercise and Position.—*Clinical Journal*, 13th December, 1911.

J. G. Taylor, M.A., M.D. Cantab., M.R.C.P., Hon. Physician, General Infirmary, Chester; and K. V. Trubshaw, M.B., B.S. Lond., Hon. Surgeon, Mold Cottage Hospital: A Report of Six Cases of Arsenical Poisoning caused by Fumes from a Coke Stove.—*British Medical Journal*, 16th December, 1911.

A. E. Baker, L.R.C.P., M.R.C.S., L.D.S., Dental Surgeon, Marlborough College: The Public School Dentist in Relation to the Home Dentist. Presented and discussed before the Annual General Meeting of the British Dental Association at London University, August 4th, 1911.—*British Dental Journal*, No. 24, vol. xxxii., 15th December, 1911.

H. P. Hooper (Peterborough), L.D.S.: Continuous Gas Administration. Read before the Annual Meeting of the Eastern Counties Branch B.D.A. at Lincoln, September 23rd, 1911.—*Ibid.*

A. MacD. Watson, L.D.S.: A Further Plea for an Educational Campaign. Presented and discussed before the Annual General Meeting of the B.D.A. at London University, August 4th, 1911.—*Ibid.*

Specialities.

Sandow's Cocoa.

Recently, by the courtesy of Mr. Sandow, we were enabled to visit the spacious and luxurious premises at the Elephant and Castle corner connected with the new Cocoa. The claims made for this Cocoa are: (1) That it contains less fat than usual; (2) That it is more finely divided, and (3) That it is lighter, bulk for bulk, than other cocoas. Our analyst's report, appended, will be seen to confirm these claims.

SANDOW'S COCOA.—This sample of cocoa gave the following figures on analysis:—

Ash, 8·2 per cent.; *alkalinity of the ash* not above normal.

Fat, 14·6 per cent. (Ordinary cocoas 26—31 per cent.)

Miscibility. The sample is more finely divided, and is rather more readily miscible than usual.

Starch. There is no adulteration with foreign starch. From the estimation of *pentosans* there is no evidence of contamination with husk.

A Report upon the use of Salvarsan in Fifty Cases of Active Syphilis treated at Out-Patients.

By C. H. MILLS.

(*Continued from page 534.*)

Cautions.—I will now mention shortly the precautions that are taken at Out-Patients. When it is decided to administer salvarsan the patient is ordered a purge, to be taken the evening prior to the injection, and advised to refrain from his mid-day meal on the actual day, Out-Patients being in the afternoon. Every case is kept for an hour at least after the injection before being allowed to leave the Hospital, and is told to keep quiet, or better to go to bed on his return home. For the first twenty cases, when N_2O was administered, my colleague, Mr. Mandel, and myself arranged that one of us should visit every case on the same evening and subsequent day. They were also sent home in a cab until I decided that the anæsthesia was unnecessary. We no longer visit them as a routine, but they are strictly warned that they are to send up to the Hospital at once should they come over queer in any way. I may add here that up to date no symptoms have ever occurred of sufficient importance to cause any anxiety either to a patient or myself.

The three following precautions should never be omitted :—

(*a*) To ascertain first whether the patient possesses an idiosyncrasy as to the tolerance of arsenic.

(*b*) To build him up on a routine administration of this drug that he may be the better able to withstand salvarsan, and note if the excretion of arsenic is satisfactory.

(*c*) Always to test the urine.

Contra-indications.—It would be most unwise to introduce salvarsan into a patient whose chief excretory glands are already showing signs of stress under the influence of the toxine of syphilis. I refer to the liver and kidneys. In a patient, then, who is suffering from secondary syphilis, who is either jaundiced or shows any evidence of acute nephritis[4] (renal pain and tenderness, œdema, albuminuria and casts, etc.), or has had both conditions, salvarsan would only further tend to irritate and "choke the filter." The elimination of arsenic would be uncertain and so a vicious circle commenced. That this is by no means a hypothetical warning is amply proved by the actual incidence of cases in which the above conditions have followed the injection of salvarsan.

If, then, the drug can produce these disturbances (or the syphilitic endo-toxine it liberates) it is only reasonable to expect that it would tend to intensify them should they pre-exist. A transient albuminuria[5] is very common after the salvarsan injection. Two cases out of the fifty to be described developed œdema of the ankles in addition to albuminuria. Wechselmann[6] records cases of renal hæmorrhage as a sequala. McDonagh considers that patients exhibiting jaundice of whatever origin should be treated with extreme caution.

Ernest Lane[7] records a fatal case in which intense jaundice developed two days after the injection, the patient becoming "a dark brown colour from head to foot." Although, of course, to what extent the endo-toxines liberated from the spirochætes were factors, in this, a case of malignant syphilis, it is impossible to estimate.

This drug should not be employed where advanced cardiac lesions are present, but in old, healed, and compensated valvular disease it is quite safe. Degenerative myocardial changes render it most dangerous, fatalities having occurred in cases where this was present with the intravenous injection. Where gummatous changes in the cardiac muscles are suspected it should be tried in small doses and repeated, provided, of coarse, there are no ill effects.

Where advanced disease of the arteries, or a large aneurism exists, salvarsan is unsafe. Deaths are recorded in cases of large aneurisms.

Wechselmann[8] has treated small thoracic aneurisms with no ill effects.

Herxheimer mentions fœtid bronchitis as a contra-indication.

Gennerich and Ivanyi consider the drug to be harmless in cases of optic atrophy and diabetes, but Herxheimer is against its use in cases presenting non-syphilitic lesions of the optic nerve. Wechselmann[8] does not consider tubercular patients as dangerous subjects (excepting advanced phthisis, acute miliary tuberculosis, and meningitis). Hæmophiliacs and any patient of a

[4] One such case has occurred at Out-Patients and, of course, treatment was withheld.

[5] Rille. Berl. Klin. Woch., Nov. 25, 1910.

[6] Wechselmann, *Lancet*, Oct. 29, 1910.

[7] *B.M.J.*, Sept. 23, 1911.

[8] Wechselmann, *Lancet*, October 29th, 1910.

hæmorrhagic tendency should not be treated with salvarsan. Hence, it should never be given too soon after operation, or when parturition is expected within the following fortnight, at least. It is dangerous in cases of cerebral syphilis, since the earliest effect of the drug is to create an inflammatory reaction around any syphilitic lesion; thus an artery already the subject of endarteritis might easily be completely occluded, and so starve any of the important centres.

This reaction can easily be witnessed after administration of salvarsan on most cutaneous eruptions, when a zone of hyperæmia frequently appears around a lesion.* The great majority of syphilides first become intensified prior to the fading stage after this drug has been given.

Of course, the greater importance of the above contra-indications applies to the intravenous method of administration. But in treating an out-patient, who, as such, cannot be kept under constant observation, the risk of a calamity is rendered almost equal to that when the intramuscular injection is employed.

Too much stress cannot be laid upon the importance of examining the condition of the patient's arteries. As McDonagh[9] points out, supposing there is present an endarteritis of a coronary artery, a small degree of reactionary inflammation might be sufficient to occlude it, and so cause death.

Preparations of Salvarsan used.

1. *Acid Preparations.*

(*a*) A simple solution of the hydrochloride in distilled water. This was only tried once and then abandoned on account of the resultant pain and local reaction. Fortunately, there was no sloughing, and absorption was finally attained by means of massage.

(*b*) The hydrochloride crystals well rubbed up and suspended in sterilized olive oil. Absorption satisfactory, but pain severe.

(*c*) As above, with the addition of 0·3 gram. chlorbutol. Absorption satisfactory and pain very much diminished. Local reaction moderate, a zone of infiltration formed requiring regular massage.

(*d*) As above, with addition of novocaine hydrochloride.

(*e*) As above, with the addition of the base novocaine. This was not satisfactory, precipitation occurring.

(*f*) As above, with the addition of 0·1 gram. of eucaine lactate, with the latter five modifications (*b, c, d, e, f*) trouble was experienced in forcing the fluid through the needles in spite of the fact that much care was taken in grinding down the crystals as finely as possible.

The acid preparations are on the whole unsatisfactory. They are painful, although the addition of the local anæsthetics enumerated to a great extent overcomes this. They produce in some instances a severe local reaction which may become a source of anxiety should sloughing ensue.

Taege and Duhot seem to have been the two authorities who were in favour of the acid preparations for the intramuscular injections.

Alt and E. Hoffmann condemn acid preparations on the grounds that they produce "a bad effect upon the heart's efficiency."

Hoffmann described attacks of feverishness saying—

"This consisted probably of a central embolic pneumonia with a subsequent pleurisy which probably had its origin in a thrombus produced or dislodged from the gluteal region by the injection of the strong acid solution."

Lesser describes a so-called, late exanthem as likely to follow the injection.

Hata states that absorption is uncertain. I have now abandoned the acid preparations.

2. *Neutral Preparations.*

The hydrochloride is first dissolved in distilled water. NaOH "normal" solution (4 per cent.) is then added—the mono-sodium and di-sodium compounds being successively formed—the base comes down as a flocculent precipitate which dissolves as it is converted into the di-sodium salt on the further addition of the alkali. The base is then re-precipitated by a sufficiency of normal acetic acid (6 per cent.), the solution being rendered neutral in reaction.

(*a*) This was employed in six cases. The pain was much less than that occurring after the acid preparations, but was at the same time appreciable. The local reaction was diminished, infiltration being slight. Absorption satisfactory.

(*b*) As above, with the addition of—

(i.) 1 c.c. of a 10 per cent. solution of eucaine lactate.

(ij.) 2 c.c. " " "

(iij.) 2½ c.c. " " "

* Herxheimer's reaction.

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This modification was tried in 20 cases. 2 c.c. of the eucaine lactate being used in the majority of cases. No trouble was experienced in the passage of the fluid through the needles. The pain was generally trivial in character, being compared to a sensation of stiffness by the patients.

Wechselmann recommends the neutral preparation on the following grounds :—

(*a*) It is possible to make up the preparation in an exceedingly small bulk.

(*b*) It possesses less irritating properties than either the acid or alkali preparations. Michaelis uses only the neutral preparations. Both Wechselmann and Michaelis employ the subcutaneous method of injection. Others condemn the method, their objections being—

(*a*) Absolute definite subcutaneous injection is very difficult to assure.

(*b*) Pain, though slight at the time, becomes severe on subsequent days, and sloughing is more prone to occur than in the intra-muscular injection.

(iii.) *Alkaline Preparations.*—The salvarsan is first dissolved in distilled water, usually 8 c.c. being required for 0·6 gram. of the hydrochloride. To this is added 5 c.c. of normal NaOH solution in bulk, and then drop by drop to complete solution, which is kept slightly alkaline in reaction.

(*a*) To this an addition of 0·1 gram. of novocaine hydrochloride dissolved in 1 c.c. of distilled water has been made. This should be added drop by drop, thoroughly shaking the while, as precipitation follows which disappears on shaking.

(*b*) Addition of Trovococaine hydrochloride gr. i. This also brings down a fine precipitate of the base, but causes no difficulty with the needle.

Alt favours the use of the alkaline preparation using a solution amounting to 30–40 c.c. in quantity ; Prof. E. Tomasczewski, Oberarzt of Lesser's Poliklinik, holds that this is the most workable method of application of salvarsan for intra-muscular injection.

One would expect alkaline solutions to produce a minimum of local disturbance provided, of course, that the reaction is not too strong.

The muscles into which they are inserted are alkaline in reaction, as are also the body fluids through which they must necessarily be absorbed.

Michaelis states that the solubility of salvarsan when introduced into the tissues is at its minimum when slightly alkaline or almost neutral solutions are employed, and further, that no matter in what form the drug is introduced the solubility never exceeds $\frac{1}{1000}$ per cent. It is probable that the relatively slight toxicity of salvarsan as compared with that of the other arsenical preparations is due to the fact that it is so insoluble in the blood.

Clinically, the employment of the alkaline preparations has proved to be the most satisfactory in the cases under discussion in this report.

I have been asked why it is that sloughing and necrosis does not occur in the same frequency in the intra-muscular injections that it does when the drug is allowed to escape into the tissues in a faulty intra-venous injection.

The most feasible explanation must be that the skin and tissue in this region (in the arm) are less able to withstand tension and irritation from a foreign body. The solution is inserted subcutaneously, and this, as pointed out elsewhere, predisposes to local reaction. Again, in a subcutaneous injection, that surface of the fluid in close apposition to the skin does not possess the same facility for absorption, as that in communication with the deep lymphatics and cellular spaces. In the intra-muscular injection absorption takes place in every direction, the injected fluid is being constantly diluted, and with massage diffusion is ensured. It would be difficult to apply massage, say to the anti-cubital space, that would be effective without further damaging the delicate skin.

That the absorption of a fluid when injected subcutaneously is much slower than when it is injected intra-muscularly is well demonstrated in the every day employment of saline infusions. The needles are now always inserted into the pectoral muscles as opposed to the old method of introducing them simply subcutaneously. Again, a slough has been known to follow the old method apart from cases where the saline was used at an excessive temperature. No cases are recorded where any inconvenience, beyond stiffness, has followed the intra-muscular infusion of saline.

That necrosis does, exceptionally, occur after the intra-muscular injection of salvarsan is, of course, well known. Some authorities estimate that it follows in from 2 to 3 per cent. of cases. Plant and Welander consider these figures too small. Necrosis has occurred in only one case out of over one hundred injections I have given at Out-Patients, and this whilst I have been engaged in writing this report. There was much

pain following the injection, and the site remained tender, swollen, and hyperæmic for the following week. This slowly quieted down, and at the end of a fortnight, massage having been withheld, a semi-fluctuating tumour persisted. The skin, immediately over this, was of a reddish-brown colour, and glistening. The patient was ordered fomentations, and three weeks after injection a small sinus appeared, discharging a creamy yellow fluid mixed with gas and having a peculiar acrid odour. Through the opening of the sinus, the lips of which were undermined for one inch all round, could be seen a white mass of necrotic tissue, painless when picked at with dressing forceps, but tough and fibrous in consistency. The surrounding tissues were not swollen, tender, œdematous, or painful, and the skin was normal in colour. The whole appearance of the lesion was that of a quiet, indolent, necrotic process, as opposed to an acute septic condition. The opening of the sinus increased in size to that of a penny-piece. The slough beneath gradually melted as if undergoing digestion, and was removed with a sharp spoon, and repair is taking place satisfactorily. Tomasczewski, in describing some of these unfortunate cases, stated that he considered the condition to arise entirely from the irritating effect of the salvarsan, and that septic organisms play no part in the process. Martius and M. Neisser describe cases that have become subsequently infected through the sinus. That it is probably due to the excessive acidity or alkalinity of the solution is suggested by the fact that in the case described, a second injection of a neutral solution into the opposite lumbar region, a fortnight after the first (whilst the disturbance here was at its height) caused practically no local reaction, and absorption was very satisfactory. The first injection was rather strongly alkaline.

During the past few days it has occurred to me that the best possible vehicle for salvarsan in the intra-muscular injection should be the patient's own serum. As Michælis points out, the drug would only be soluble to the extent of $\frac{1}{1000}$ per cent. The crystals, ground to a very fine powder, could be emulsified in the serum by vigorous shaking. I have not yet been able to try the method, but theoretically absorption ought to be very satisfactory. Some of the soluble preparations of the drug might very well be greatly diluted by an addition of the patient's serum previous to injection.

It is of small use to discuss this method, however, until it has been given a thorough trial, which I hope to do at an early date.

Dosage.

The actual dose given to each patient has been decided upon more by discrimination than by any set formula (0·00x gram. of salvarsan per kilo of body weight), the factors taken into consideration being the age, weight, and general condition of the patient. The quantity introduced at each injection has varied from 0·3 gram. to 0·6 gram., the average fairly robust adult receiving 0·6 gram. Should the patient be a weakly, debilitated, half-starved individual, then only 0·3 gram. would be given, were there no other existing contra-indications, and then repeated in, say, a fortnight, by the full dose—0·6 gram.—provided, of course, that the first dose was well tolerated and absorption satisfactory.

Ehrlich[10] himself considers that 0·4 gram. should be the maximum dose in cases presenting any nerve affections.

All authorities are now agreed that subsequent injections are essential.

McDonagh[11] states that syphilitic lesions of the optic and acoustic nerves, so prone to recur after an injection of salvarsan, are entirely cleared up if the initial dose is repeated within the fortnight. He states that it is only in those clinics where a second injection is withheld until the appearance of recurrence that these nerve recurrences ensue.

The majority of the 50 cases in this report have received two, if not three, injections.

By the administration of too small a dose for the initial injection only a certain proportion of the total number of Spirochætæ Pallidæ present in the individual will be destroyed. Not only will this occur, but, what is far worse, the remaining Spirochætes tend to become more resistant against a subsequent injection of salvarsan.

When this condition has been produced some authorities describe the Spirochætes as having become *arsenic fast*, their tolerance to arsenic having been raised by the insufficient dosage in the first instance.

Case 1.—J. K., æt. 24, lighterman. Patient complained of small sore on under surface of glans penis. First noticed 8 days prior to attendance, commencing as small painless "pimple" beneath the mucous membrane. It gradually developed in size and ulcerated, becoming roughly oval in shape, and about equal in size to a threepenny-piece. Coitus had occurred four weeks previously. Sore was definitely indurated. Inguinal glands on both sides discretely enlarged and painless. Cervical glands enlarged. Epitrochlear glands not palpable. Serpiginous ulcera-

[10] Transactions of B. P. Conference, p. 272.

[11] *B.M.J.*, September 23rd, 1911.

tion of fauces. Faint macular squamous rash present on chest and abdomen. Spirochæta Pallida found present in slides taken. February 3rd, 1911: 0·5 gram. of salvarsan injected into gluteal muscles under N_2O; patient sent home in cab, visited same evening: no temperature, rigors, vomiting, or headache; pulse normal; some local pain. 4th: Passed good night; bowels opened; slight pain over seat of injection. 7th: Patient been walking with no discomfort; healthy granulations at site of chancre, also reduced in size; the rash has vanished; throat normal. 10th: Sore dry and practically healed; no induration; no pain or discomfort in buttock. 16th: Patient fought in boxing match, three rounds (and was successful): the inguinal and cervical glands are much smaller. also sore completely healed; absorption of injection complete; patient has been massaged regularly by a friend. 27th: Patient greatly improved in general appearance; healthy colour; no evidence of external syphilis; has put on weight; blood taken for Wassermann. March 6th: Wassermann reaction negative; patient put on mercury after attending the Dental Department. 24th: Progress continues favourably; no recurrences. May 12th: Patient has been unable to attend regularly. 26th: Patient still on mercury; slight gingivitis; ordered hydrogen peroxide as mouth wash. Patient has failed to attend from this date, and letter addressed to him was unanswered.

Case 2.—F. S., æt. 22, carman. December 26th, 1910: Last chance of infection. 31st: Noticed urethral discharge. January 15th, 1911: First noticed soreness at coronal sulcus; remained untreated. February 3rd: The coronal sulcus is converted into a hard indurated ring; the surface is covered with a yellow slough in the form of a trench a quarter of an inch deep and the same width; there is an accompanying gonorrhœal discharge; inguinal glands discretely and painlessly enlarged; epitrochlear glands enlarged on both sides, on the right a chain of these can be felt; discrete papulo-squamous rash present on abdomen, upper arms, and thighs; few papules also on buttocks; fauces ulcerated; patient "feels hoarse"; Spirochæta Pallida present in slides taken. 4 p.m.: 0·6 gram of Salvarsan injected into gluteal muscles under gas; patient sent home in cab. 10 p.m.: Pulse and temperature normal; injection painful; hypodermic injection of morphia given, ¼ gr. 4th: 11 a.m.: Pain still present; no headache or vomiting; trace of albumen in urine. 5th. Pain resembling sciatica present on right side; sore looks quite clean and granulations are visible; throat normal; rash appears of faint brown colour. 7th: Pain only slight; fair amount of infiltration at site of injection; healthy granulations on sore; induration almost gone. 10th: Sore become dry; few patches of pigment still present marking position of papular rash. 12th: Some thickening in buttock; pain gone; sore almost healed; glands much smaller. 17th: Sore healed; rash entirely disappeared; infiltration in buttock much smaller; urine normal (excepting presence of arsenic). 24th: Absorption at injection complete. March 10th: Blood taken for Wassermann. 17th: Wassermann negative; no evidence of external syphilis; no arsenic found in urine; patient put on mercury, teeth good. 31st: No recurrences; general condition good. April 24th: Condition satisfactory. 28th: Gums tender when teeth are clenched; mercury withheld for a fortnight. Patient has not since attended the hospital, although written for.

Case 3.—W. C., æt. 28, labourer. January 23rd, 1911: Two weeks ago patient first noticed sore on prepuce; incubation period, 14—21 days. 27th: There is a sloughing sore the size of a sixpenny piece on the right side of the prepuce; the right inguinal glands show signs of breaking down; the left inguinal glands are enlarged and tender; circumcision performed, the chancre being kept for sections. Spirochæta Pallida was not found present in slides taken. I find that the most important point concerning the success in this operation by means of a local anæsthetic is first to completely render both the anterior urethra and glands penis anæsthetic with a 5 per cent. solution of eucaine lactate prior to the infiltration of the skin with novocaine. Specimen of blood taken for Wassermann; no manifestations present of secondary syphilis. February 10th: Sections of chancre (stained with AgNO3) reveal presence of Spirochæta Pallida in deeper layers; Wassermann reaction positive; patient cannot wait to have salvarsan injections; circumcision wound healed; faint macular rash on chest. 17th: 0·6 gram. salvarsan injected into muscles at inferior angle of scapula under gas; patient sent home in cab, visited same evening; general condition normal; throbbing, dull pain at site of injection complained of. 20th: Patient complains of sensation of stiffness at site of injection; infiltration rather marked; rash disappeared; inguinal glands subsided. 27th: Infiltration still marked in scapular region; massaged for 15 minutes; patient told to get friend to perform same night and morning; no evidence of external syphilis. March 13th: Infiltration almost disappeared; general condition good; no recurrences. 20th: Small nodule the size of a marble at site of injection; blood taken for Wassermann reaction. 27th: Wassermann negative; patient put on mercury. April 7th: Condition satisfactory. 28th: No recurrences. May 19th: As above. June 2nd: Wassermann negative; patient obliged to leave London on account of employment.

Case 4.—W. S., æt. 19. Chancre, five weeks old, on dorsal aspect of coronal sulcus; diffuse papulo squamous rash. Mucous patches on lower lip and at anus. Ulcerated fauces. General adenitis. February 24th, 1911: Spirochæta Pallida present in slides taken from chancre; Wassermann positive; 0·6 gram. of salvarsan injected in muscles at inferior border of scapula under gas; cab home, patient visited the same evening; no general disturbances; moderate pain at site of injection. 27th: Rash vanished, except for a few faded papules on arms and thighs; mucous patches cleared up entirely; throat normal; induration around chancre diminished; infiltration at site of injection forming mass size of half an orange. March 3rd: Chancre dry and almost healed; glands smaller; infiltration resolving under massage; patient been constipated. 10th: Chancre completely healed; still small nodule at site of injection in muscle the size of a marble. 17th: No evidences of active syphilis present; absorption complete; patient has gained 7 lbs. in weight since injection. 31st: No recurrences. April 21st: Wassermann reaction negative; patient put on mercury and potassium iodide. 28th: Patient has diarrhœa, been eating fish; mercury stopped. May 5th: Mercury resumed; no recurrences. 19th: Progress satisfactory; patient can only attend once a month. June 16th: A month's rest from mercury ordered. July 14th: Wassermann negative; one month's course of weekly mercurial injections commenced (1 gr. of mercury in 10 minims). August 2nd: Slight

gingivitis with salivation; patient ordered to take a Turkish bath and one month's rest from treatment; garg. aluminis as mouth wash. November 8th: Patient in good health; no recurrences; says he cannot attend any longer (no time afternoons) through risk of loosing his employment. Advised to take a course of mercurial pills, hyd. c. creta et sodæ, iv. gr., *four daily, with one week's rest each month.* Promised to come up in three months' time. Patient has not come up to be examined though written for.

Case 5.—G. D., æt. 22, "paper boy." February 24th, 1911: Patient attended Mr. Thompson's Out-Patients in December, 1910, suffering from multiple sores of the penis. Patient was ordered local treatment and advised to attend regularly. This he failed to do. Two weeks ago patient developed a sore throat, also coppery macular rash on trunk and limbs. Hard indurated and punctured mass in coronal sulcus on dorsum of penis. Inguinal glands discretely and painlessly enlarged. Wassermann positive. Mr. Browning found *Spirochæta Pallida in slides* taken. 27th: 0·5 gram of salvarsan injected subcutaneously into inferior scapular region under gas; Mr. Mandel saw patient same evening and found him to be quite comfortable. March 3rd: Throat much *improved, soreness gone, and no ulceration visible*; rash faded brown colour, none on chest; induration of chancre very much less. 10th: Rash disappeared; throat normal; induration completely gone from site of chancre; there is still a mass of infiltration from injection; same massaged for 15 minutes; still painful; 24th: No external evidence of syphilis. April 21st: Wassermann reaction positive; Mr. Thompson advised that patient be put on mercury. May 5th: Patient tolerating mercury well; no recurrences. 19th: Patient ordered a fortnight's rest from mercury. June 2nd: Patient again on mercury combined with potassium iodide. 16th: Patient in good health; no recurrences. *30th: One month's rest from treatment.* July 28th: Wassermann negative; mercury resumed. Patient has not attended since this date.

Case 6.—C. R., æt. 27, labourer. March 3rd, 1911:—Patient has been under mercurial treatment since January 2nd, when he first attended Out-Patients with a chancre of three weeks' history. He, however, developed a maculo squamous rash and ulcerated fauces which still remain. Mr. Thompson therefore suggested that salvarsan be given a trial. Urine normal. Nodule of induration still present on penis. March 6th: 0·6 gram salvarsan injected subcutaneously in infra-scapular region under gas; cab home; I visited patient same evening; no symptoms of general disturbance; pain at site of injection, also hyperæmia. 10th: Rash completely vanished except for few very faint brown macules on upper chest in front; throat normal; site of injection still painful to pressure; trace of albumen present in urine. 13th: Induration disappeared from chancre, now completely healed; rash *cleared up; urine normal; infiltration from injection* dispersing slowly under massage. 20th: Patient again put on mercury by the mouth; still a thickening at site of injection. April 3rd: Absorption from injection satisfactory; no recurrences; patient on mercury and potassium iodide. May 1st: Fortnight's rest from treatment. 15th: Wassermann negative; mercury and potassium iodide resumed. June 3rd: Patient in good health; states that he will have to attend St. Peter's Hospital in the evenings as his employment does not allow him further absence in the afternoons. 15th: Patient has been on a course of mercurial injections at St. Peter's; ordered a *month's rest. December 13th:* Wassermann negative. To be again tested in three months' time, treatment being withheld.

Case 7.—E. J. H., æt. 30, "market porter." February 10th, 1911: Patient has a small indurated preputial chancre, noticed first ten days ago. Incubation period stated at ? 6 weeks. Inguinal glands painlessly and discretely enlarged. A thickened lymphatic vessel can be felt along the dorsum of penis. Spirochæta Pallida present in slides taken. 0·6 gram of salvarsan injected subcutaneously in infra-scapular region under gas; cab home, patient visited same *night. No general disturbances. Injection painful.* 13th: There is a papular urticarial eruption forming a circle around the site of injection which patient says itches intensely; healthy granulation on sore: arsenic present in urine; no albumen. 17th: Sore completely healed; glands much smaller; local reaction to injection quieted down. 24th: Still mass of infiltration present from injection, though much smaller; massage for 15 minutes. March 3rd: Absorption satisfactory. 31st: Patient in good health; Wassermann negative. July 10th: Patient says he has been unable to attend; no recurrences; Wassermann positive; patient put on course of mercurial injections, *also potassium iodide. 24th: Patient in good* health; has gained 5 lbs. in weight since injection. August 25th: Patient no longer able to attend in the afternoons, so advised to go to St. Peter's on Wednesday evenings, where I have been able to carry on *the further treatment. October 18th: Patient on* course of mercurial injections; general health good; no recurrences. November 22nd: Patient tolerates mercury well, and looks quite healthy; mercury withheld for a month. December 13th: Patient has not atended for Wassermann test as ordered (since found to be negative).

Case 8.—A. J. W., æt. 45, "*costermonger.*" December 15th, 1910: Sore first noticed commencing as pimple in coronal sulcus; it became soft and spread. February 20th, 1911: Sloughing mass in coronal sulcus; no induration; inguinal glands enlarged, also cervical and axillary; profuse maculo-squamous rash on trunk and limbs with few papules between scapulæ and on nates; scaly macules also on forehead; there is a T-shaped fissure on dorsum of tongue; gums spongy, with accompanying pyorrhœa alveolaris; teeth bad and breath very foul; there is a typical "snail track" ulcer at base of uvula spreading along the anterior pillar of fauces on left side; voice husky; corde red and swollen; in the left eye there is well-marked syphilitic iritis; circum-corneal injections with a dull and thickened iris; posterior synechiæ (ring form) (Mr. Ormond); two mucous patches around anus; alopecia most marked on left side of forehead: *Spirochæta Pallida present in slides from sore;* 0·6 gram of salvarsan injected into muscles at inferior angle of scapula under gas; cab home. 22nd: Pain from injection slight; throat improved; anal mucous patches dry and much smaller; rash rather more pronounced. 24th: Sore on penis much smaller, and covered with healthy granulations; rash fading; tongue improved; ulcers cleared from fauces; anal patches healed; eye condition unaltered; massage; to have teeth attended to. 27th: Sore healed completely; rash very faint, except for papules which are now brown

in colour; hoarseness much diminished; fissure on tongue smaller and painless; iritis improved; pupil now regular under atropine; circum-corneal injection less marked; iris less "heaped" and hazy; patient put on mist. hyd. perchlor. et pot. iod. 1 oz. (G.H.P.), four doses daily; rash almost gone. March 10th: Tongue and throat healed completely, also iritis much improved; rash vanished. 24th: Improvement continues. April 21st: Patient gained 11 lbs. in weight since injection; in good health. 28th: Gums tender; to rest a month; garg. hydrogen peroxide. May 26th: Wassermann negative; mercury and pot. iod. resumed. June 30th: No recurrences; patient feels and eats well. July 28th: No evidence of external syphilis; patient failed to attend subsequently, though written to.

Case 9.—R. C., æt. 26, "hawker." February 27th, 1911: Indurated sore at frenum noticed 12 days ago. Incubation period 24 days. Inguinal glands discretely and painlessly enlarged. Spirochæta Pallida present in slides. Urine normal. Patient put on arsenic and pot. iod. March 6th: 0·6 gram of salvarsan injected in muscles at inferior angle of scapula under gas; cab home; no general disturbances same evening. 10th: Pain at site of injection; skin rather angry-looking; sore looking healthy; patient's general appearance much improved; appetite increased; bowels not opened since injection; massage. 17th: Sore healed; absorption good; infiltration absorbing; massage; patient complains of stiffness of shoulder. 31st: Infiltration almost disappeared; massage; induration completely gone from chancre; patient put on mist. acidi co. (G.H.P.). April 28th: No evidence of secondary manifestations; Wassermann negative; patient put on mercury and pot. iod. May 12th: Patient in good health; no evidence of external syphilis. June 16th: Patient still on mercury and pot. iod. July 14th: Patient complains of headache and dizziness; mist. acidi co. substituted for mercury and pot. iod. Patient not seen since this date, and letter addressed to him returned "not known."

Case 10.—B. C., æt. 20, clerk. February 20th, 1911: Sore on left side of body of penis six weeks old. Appeared three weeks after risk of infection. First seen three weeks after development. Slides taken and no Spirochæta Pallida found; seen again five weeks after development. Spirochæta Pallida present. Wassermann positive. Sore larger, also area of induration. Inguinal glands enlarged and tender; those on left side look like breaking down; no secondary symptoms present. 0·6 gram of salvarsan injected into his muscles at inferior angle of scapula under gas; cab home. No toxic symptoms same evening; pain slight. 24th: Pain moderate from injection; sore less indurated, and covered with healthy granulations; massage. March 3rd: Sore almost healed; glands subsided; massage. April 10th: Sore completely healed; glands softer; massage; no induration whatever at site of sore; still lump of infiltration from injection; patient put on mercurial injections. April 7th: Progress satisfactory; no secondary symptoms. May 19th: General health good; mercury continued. July 7th: Patient rather anæmic; rest from mercury. August 21st: Patient had a definite *recurrence,* there being a diffuse macular rash over chest, back, thighs, and upper arms; serpiginous ulceration of fauces; to have Wassermann tested; recurrence 22 weeks after injection. 25th: Wassermann positive; intramuscular injections of mercury recommended. September 18th: Rash faded and almost disappeared; patient developed gingivitis; mercury suspended; second 0·6 gram of salvarsan injected into spinal muscles under local anæsthesia; no pain. October 2nd: Absorption satisfactory; gingivitis cleared up. 6th: Patient put on Donovan's solution; massage to site of injection 15 minutes; Wassermann positive; patient losing weight. 16th: Third injection of 0·6 gram of salvarsan into opposite lumbar region under local anæsthetic; no pain. 20th: Absorption good; leucocytosis 17,000; trace of albumen in urine. 27th: Urine normal; patient gaining weight. November 10th: Patient more healthy-looking. December 4th: Blood taken for Wassermann; patient put on Donovan's solution. 15th: Wassermann positive. This is one of the two cases of recurrence after salvarsan injection out of the 50. It is a very refractory case both to mercury and salvarsan.

Case 11.—H. O., æt. 23, labourer. Patient presents hard indurated mass in coronal sulcus. Prepuce very œdematous, the result of lymphatic œdema of penis. Remains of old infective sores on scrotum corresponding to the excoriation from urethral discharge still present. General adenitis. Epitrochlear glands palpable. Œdema been present three months. Fading maculo-squamous rash most marked on buttocks. Serpiginous ulceration of fauces. Cords hyperæmic. Patient hoarse. Wassermann positive. April 7th, 1911: 0·6 gram of salvarsan injected into muscles at inferior angle of scapula under gas; cab home; no general disturbances same evening; injection rather painful. 10th: Induration diminished; throat much improved; œdema much less; rash almost disappeared; massage 15 minutes. 21st: Rash disappeared: œdema cleared up, also induration; absorption satisfactory. May 5th: Patient looks well: has gained 6 lbs.; patient put on mercury and pot. iod. June 16: No recurrence. July 14th: Progress satisfactory; patient still on mercury and pot. iod. August 1st: Patient joining a ship, and was therefore ordered grey pills.

Case 12.—T. B., æt. 33. Patient presents meatal chancre plus gonorrhœal discharge. Papulo-squamous rash, most pronounced on thighs. "Snail-track" ulcer on left tonsil. Cords hyperæmic. Patient very hoarse. Chancre is very indurated, extending on to frenum. Wassermann positive. Spirochæta Pallida present in slides. Chancre producing moderate degree of stricture. May 1st, 1911: 0·6 gram of salvarsan injected into gluteal muscles under gas; patient sent home in a cab. 5th: Pain from injection slight; massage 15 minutes; rash faded; throat greatly improved; patient less hoarse; induration around chancre less. 12th: Large mass of infiltration in gluteal region at site of injection; pain shooting down to knee complained of at times; rash gone, sore healed, still a little thickening marking its site; meatus dilated with metal bougie; throat normal; massage to injection 15 minutes. 19th: Patient put on mercury and pot. iod.; meatus dilated; massage repeated. June 9th: No external evidence of syphilis; meatus dilated; absorption of infiltration not absolutely complete; massage repeated. July 7th: Still a thickening to be felt in gluteal region; meatus admits 22/24 metal bougie easily; patient still on mercury. This patient has not attended since this date.

Case 13.—A. K., æt. 25. Patient has a much indurated sore on prepuce; has been present three

weeks. Developed three weeks after risk of infection. There is a certain amount of œdema of penis. No evidence of secondary symptoms. Spirochæta Pallida present in slides; Wassermann positive. June 9th, 1911: 0·6 gram of salvarsan injected into gluteal region under gas; cab home; pain slight (some of the fluid was spilt during injection); no general disturbance same evening. 12th: Except for neuralgic pain down back of thigh there is no discomfort; sore increased in size; induration less hard; no Spirochæta Pallida could be found out of six slides (checked by Mr. Browning). 16th: Sore (actual ulcer) larger; induration gone; no secondary manifestations; pain gone. 19th: Sore smaller, but not healing satisfactorily. 26th: Sore much smaller; to have second injection. 30th: Second injection of 0·6 gram of salvarsan into spinal muscles under gas. July 3rd: Sore healed; absorption good; no pain; patient put on mercury and pot. iod.; massage. August 7th: Progress satisfactory; no evidence of syphilis. September 8th: Patient in good health; patient failed to attend, so was written for. December 15th: No evidence of external syphilis; patient feels well.

Case 14.—W. R., æt. 38, arsenal labourer. June 9th, 1911: One month previous patient first noticed swelling of penis three to four weeks following risk of contagion. Commenced as small fissure or "tear" After retraction of prepuce during application of lotion, patient was unable to reduce same. Paraphimosis resulted, and glans penis commenced to slough. This was untreated. Patient now has a diffuse papulo-squamous syphilide. This has become pustular in places with five rupial patches on back. Patient is very run down and in a bad state of general health. Wassermann positive. 12th: 0·3 gram of salvarsan was injected into the gluteal muscles under gas; no discomfort. 16th: 0·4 gram of salvarsan was injected into the opposite gluteal muscles under gas; slight pain. 19th: Rupial patches show a red zone of reaction around them; general rash much faded; patient's general condition greatly altered; œdema subsided from penis. 26th: Condition *of penis much improved; some induration still present* at frenum; general rash vanished; rupial patches greatly improved; massage. July 3rd: Penis healed, but for a small dry scab at frenum; induration gone; cicatrices of rupial patches only remain; massage; patient put on pot. iod. and arsenic. August 7th: Patient in good health and doing hard work. October 1st: Patient removed scab from old sore some days ago; penis swollen; inguinal glands enlarged, diffuse macular rash on chest and forehead; fauces ulcerated; patient has re-infected himself. 0·6 gram of salvarsan given into spinal muscles under local anæsthetic; no pain. 9th: Rash gone; throat clear: chancre quite healed; absorption of injection not satisfactory; massage 15 minutes. 16th: A burn on the hand patient received during his work has healed very rapidly since the injection; condition satisfactory. November 19th: Patient has now contracted gonorrhœa; syphilitic condition unchanged; patient put on mercury. 24th: Condition unaltered. December 15th: Wassermann negative.

Case 15.—J. G., æt. 18. June 16th, 1911: Five weeks ago patient noticed small pimple at base of penis appearing three weeks after risk of contagion. This gradually increased in size to that of a shilling, discharging freely, forming a painless ulcer. Prepuce is œdematous. Edges of ulcer indurated. 23rd: Spirochæta Pallida present in slides; Wassermann positive; tonsils and fauces extensively ulcerated; commencing faint macular rash on chest; patient put on pot. iod. and arsenic. 30th: 0·5 gram of salvarsan injected into gluteal muscles under gas; patient also circumcised for condition of phimosis produced by the œdema; rash now prominent and very diffused; throat painful. July 3rd: Rash faded; induration gone; throat painless and much improved; massage. 14th: Circumcision quite healed; staining of rash present in few places; sore healed; patient much improved in general health. 28th: Throat quite well; rash gone. August 4th: Patient continues to improve. 14th: Patient put on mercury and pot. iod. September 11th: Patient in good health. Patient has not attended since this date, though written for twice.

Case 16.—J. C., æt. 37. June 26th, 1911: Four months ago patient contracted syphilis, having a sore on right side of coronal sulcus and also an annular sore at base of penis (horse-shoe). Has been treated for one month with mercury at an Infirmary. Has now developed a profuse maculo-squamous rash and a few pustules discretely scattered about. His throat is badly ulcerated. There is a membrane on fauces resembling that of diphtheria (swab negative to KLB). 30th: Throat much worse; soft palate commenced to slough; patient on mercury. July 3rd: 0·6 gram of salvarsan injected into gluteal muscles under gas; pain slight. 10th: Throat greatly improved; mercury continued. 17th: Throat almost well; rash gone, except for staining at site of pustules; penis healed. 28th: Improvement continues; patient has gained 16 lbs. August 9th: Patient very pleased with his improvement; put on Donovan's solution. 16th: Patient in good health; no recurrence; Donovan's solution continued. Patient wrote stating he would be unable to attend further, as he was leaving London.

Case 17.—E. S., æt. 20. July 7th, 1911: Patient has deep sloughing sore in coronal sulcus on dorsum of penis. Its base is much indurated. It developed three weeks after infection. Inguinal glands enlarged painlessly. No secondary manifestations. Spirochæta Pallida present in slides. 10th: 0·6 gram of salvarsan injected into gluteal muscles under gas; massage 10 minutes; cab home. 14th: Patient complains that pain from injection has been severe; sore smaller; induration softer; massage. 21st: Pain gone from injection; sore healed over, but still some induration present; massage. August 4th: Induration gone from chancre; absorption not complete. October 13th: Patient not attended for two months. A small nodule still remained at site of injection; no syphilitic manifestations. November 3rd: 0·6 gram of salvarsan into spinal muscles under local anæsthetic; no pain: massage. 10th: Absorption very satisfactory; no pain. 17th: Patient in good health; no evidence of syphilis: absorption complete; patient put on mercury and pot. iod. Patient has not attended since this date, though written for.

Case 18.—C. P., æt. 31, taxi-driver. Patient has been for 18 months under mercurial treatment by injections at St. Peter's Hospital. A most intractable tubercular syphilide has developed on patient's face, and is spreading in spite of treatment. There is also a large patch on left forearm. He is becoming very disfigured. August 2nd, 1911: 0·6 gram of salvarsan

given into spinal muscles under local anæsthetic; pain severe on same evening. 17th: Lesions are much paler in colour; massage. 21st: All aching ulceration of skin disappeared; there is only one small scab remaining on right frontal region; progress really remarkable; patient very pleased. 25th: All scabs gone; only cicatrices remaining; patient put on pot. iod. October 24th: Patient writes that it is impossible for him to attend in the day time. He adds: "I shall never be able to thank you enough for the cure that has been effected in me through your hands." December 15th: Patient's face has cleared out of all recognition; arm also quite cleared up; blood taken for Wassermann. December 22nd: Wassermann partially positive.

Case 19.—W. B., æt. 23. Sore on frenum eight weeks. Prepuce œdematous from syphilitic lymphangitis. Very diffuse dull-red maculo-squamous eruption over chest, abdomen, back, buttocks, thighs, upper arms, and faint on forearms. Face and neck free from rash. There are two rupial patches in centre of back in lower dorsal region; mucous patches at anus. Tonsils ulcerated. Spirochæta Pallida present in slides. August 21st, 1911: 0·6 gram of salvarsan given into spinal muscles under local anæsthetic; massage; no pain. 25th: Sore smaller; induration softer; rash fading; throat normal; rupial patches unaltered; mucous patches disappeared. 28th: Stains of rash only remain; sore healed. September 1st: Improvement continues; patient put on mercury and pot. iod.. Has not attended since this date, though written for.

Case 20.—J. B., æt. 45. September, 1901: Attended St. Peter's with primary sore. September, 1903: Discharged. In 1905 skin eruption commenced under left nipple. This has gradually spread, and now patient's chest and abdomen is covered by seven large patches of scaly eruption resembling psoriasis very closely. There are five such patches on the back. There is also a gumma breaking down on the left leg. Wassermann positive. August 25th, 1911: 0·6 gram of salvarsan into spinal muscles under local anæsthetic; no pain. 28th: Patient put on pot. iod. and arsenic; gumma much improved; some of the patches have faded considerably. September 4th: Gumma almost healed. 18th: Gumma healed; rash faded and very scaly, closely resembling psoriasis. October 9th: Rash fainter. 16th: Rash almost gone; patient has œdema of both ankles; no albumen in urine; medicine omitted. December 15th: Faint pigment where rash had been. Wassermann positive.

Case 21.—W. B., æt. 25. Commencement June, 1911: Patient developed gonorrhœa on 19th June; this became complicated with a left epididymitis with accompanying small painless hydrocele. (Fluid from same gave negative cultivation at 37° C. after three days, but gonococci found present by direct examination.) Early in July sores appeared on penis, one at frenum and the other in coronal sulcus on dorsum. July 15th, 1911: Spirochæta Pallida found present in slides taken from same; patient put on mercury, being in a very weakly condition. August 21st: Faint macular rash appears. 28th: Rash out and very pronounced macular erythematous; patient very anæmic (weight, 11 st. 4½ lbs.). September 1st: 0·6 gram of salvarsan into gluteal muscles under gas; massage; cab home. 4th: Rash vanished, except for faint pigmentation; practically no pain from injection; massage. 11th: Rash completely disappeared; massage. 22nd: Patient much improved in general health; better colour; appetite improved; can work all day and feel fit; before injection became easily tired; patient put on mist. ferri arsenicalis (G.H.P.); no evidence of external syphilis; penis completely healed; massage repeated; infiltration at site of injection just palpable. 29th: Patient continues to improve; absorption complete; weight, 11 st. 6 lbs.; to have Wassermann; still on mist. ferri arsenicalis. October 6th: Wassermann positive; patient put on Donovan's solution; weight, 11 st. 8 lbs. 9th: 0·6 gram of salvarsan into spinal muscles under local anæsthetic; no pain. 13th: Site of infection hyperæmic; weight, 11 st. 10 lbs. 23rd: Absorption good; infiltration nearly gone. November 17th: Patient in good health; for Wassermann; weight, 11 st. 9 lbs. December 1st: Wassermann negative; weight, 11 st. 12½ lbs.; patient put on mercury. 15th: Progress satisfactory; no recurrences.

Case 22.—F. S., æt. 21. September 2nd, 1911: Small indurated sore on under surface of glans penis. First noticed nine days ago. Inguinal glands discretely and painlessly enlarged. No manifestations of secondary syphilis. Spirochæta Pallida present in slides. Patient put on arsenic and pot. iod. 18th: 0·6 gram of salvarsan into gluteal muscles under gas; massage; cab home. 22nd: Sore dry and almost healed; pain from injection slight; pricking sensation passing down back of thigh; massage. 29th: Sore healed completely; inguinal glands still enlarged, but soft; patient in good health. October 6th: No evidence of external syphilis. 20th: As above; for Wassermann. 27th: Wassermann negative. Patient attending St. Peter's for course of mercurial injections.

Case 23.—J. O'C., æt. 27. September 15th, 1911: Patient contracted gonorrhœa 6 months ago. Sore appeared on penis one month later. Four weeks ago patient first noticed rash on body. Has now a diffuse papulo-squamous on trunk and limbs. Rash must have been out at least two months, judging from brown staining. Patient suffers from severe headache (recent). Pain, neuralgic, in arms and legs; appetite bad; occasional vomiting; indigestion. Marked general adenitis. Posterior cervical glands very enlarged (size of a walnut). Right inguinal also marked. Patient has been losing weight rapidly. Wassermann positive. 0·6 gram of salvarsan injected into gluteal muscles under gas; massage; cab home. 22nd: Patient had slight pain; missed massage Monday; infiltration marked; massage 15 minutes; rash fading; appetite returned; colour fresh; patient more vivacious; weight, 8 st. 9 lbs. 29th: Patient now a good healthy colour, his friends remarking on it; pain and infiltration gone; weight, 9 st. October 6th: Weight, 9 st. 4½ lbs. rash gone; absorption complete; penis healed. November 6th: No evidence of syphilis externally; patient put on mercury and pot. iod. Has not attended since this date.

Case 24.—W. McD., æt. 24, waiter. Patient had primary sore 14 months ago; been under treatment by general practitioner (mercury and pot. iod.); losing weight. Very anæmic. Throat excessively ulcerated. Tongue in condition of diffuse leukoplacia. Wassermann positive. September 29th, 1911: Weight, 7 st. 12 lbs; 0·6 gram of salvarsan into spinal muscles under local anæsthesia; massage; no pain. October 6th: No pain from injection; slight infiltration; appetite and colour improved; patient constipated. 13th:

Throat cleared up; tongue much improved; gums tender; weight, 7 st. 8½ lbs. 20th: 0·6 gram of salvarsan again injected under local anæsthetic into spinal muscles; no pain; to attend Dental Department. 27th: Absorption nearly complete; weight, 8 st. November 10th: Infiltration returned; patient omitted to massage; patient put on mist. acidi co. (G.H.P.). 24th: Fauces quite clear; tongue clean only, showing "bald" patches in places; weight, 8 st. 3¾ lbs. December 4th: Wassermann negative; patient put on mercury pills; weight, 8 st. 5 lbs.

Case 25.—H. M., æt. 20. Indurated sore on glans penis two months. Now has diffuse, angry-looking papulo-squamous rash on trunk and limbs and forehead. "Snail-track" ulcers on fauces. Papillomata on inner surfaces of thigh and beneath scrotum. Patient very anæmic; appetite poor. Patient weighed *9 st. 10 lbs. before development of sore.* Present weight, 9 st. 3½ lbs. Spirochæta Pallida present in slides prepared from moist papillomata. September 29th, 1911: 0·6 gram of salvarsan into spinal muscles under local anæsthetic; massage; no pain whatever. October 1st: Rash redder and more conspicuous; arsenic found in urine; injection caused very little infiltration; patient put on Donovan's solution; weight, 9 st. 2 lbs. 6th: Rash faded slightly; throat cleared up; papillomata gone; sore on penis dry and smaller. 13th: Rash now brown; penis healed; trace of albumen in urine; Donovan's solution stopped. 20th: Rash little altered; other conditions satisfactory; urine normal; weight, 9 st. 8 lbs. 23rd: 0·6 gram of salvarsan into spinal muscles under local anæsthetic; no pain; massage. 30th: Only faint brown staining left from papules; throat normal; absorption thorough. November 13th: Pigment still present from papules; weight, 9 st. 9 lbs. 14th: Secondary infection entirely absorbed; no thickening; there is a small nodule the size of a marble marking site of first injection. Weight, 9 st. 12 lbs. Patient put on mercury and pot. iod. Is coming up for Wassermann.

Case 26.—F. F., æt. 45. Patient had primary sore two years ago; treated for one year. For past four months has been having mercurial injections at St. Peter's Hospital, also pot. iod. Patient has had gingivitis; extensively ulcerated throat; diffuse leukoplacia of tongue. Throat very painful. Wassermann positive; September 29th: 0·6 gram salvarsan injected into spinal muscles under local anæsthetic; no pain; hydrogen peroxide mouth wash; massage. October 1st: Pain entirely gone from throat; injection painful and slightly hyperæmic; hot flannel compresses ordered; arsenic in urine; patient put on Donovan's solution; patient constipated. 6th: Tongue much improved, also gingivitis; fauces clear. 9th: Patient feels much better; tongue satisfactory; doing vigorous work 16th: Patient omitted to massage himself; absorption not satisfactory; massage 15 minutes: to have teeth attended to. November 6th: There is one small nodule the size of a marble that appears to have become encapsuled at side of injection; vigorous massage 15 minutes. 20th: Throat and gums normal; "bald" patches only present on tongue; deposit from injection smaller; massage repeated; Wassermann negative; patient put on a course of mercury and pot. iod. December 15th: Patient in good health.

Case 27.—*H. O., æt. 34.* Primary sore two years ago; been under mercurial course of injections at St. Peter's for this period. Patient weighed 14 st. before mercury was commenced; patient now weighs 9 st. 1 lb. Throat extensively ulcerated; soft palate shows signs of sloughing; leukoplacia of tongue. Effusion into left knee joint. Severe headaches. Wassermann positive. September 29th, 1911: 0·6 gram of salvarsan into spinal muscles under local anæsthetic; massage; no pain; patient ordered lotio plumbi (diluted) as mouth wash. October 6th: Throat cleared up, but for one spot on right tonsil and another on soft palate; site of injection tender; no hyperæmia; massage; knee unaltered; weight, 9 st. 7 lbs. 27th: Absorption of injection complete; headache entirely gone; throat and papule normal; tongue much improved; faint eruption on scalp, doubtful if of syphilitic origin; weight, 11 st. 1½ lbs. November 3rd: Fluid gone from left knee; scalp normal; weight, 11 st. 3½ lbs 24th: Tongue normal, but for "bald" patches; fauces normal; also left knee; weight, 11st. 11lbs.: December 1st: Patient in good health; weight, 11st. 12lbs.; Wassermann negative. Patient put on mercurial injections and pot. iod.

Case 28.—J. M., æt. 26. Indurated sore in coronal sulcus (left side) fourteen weeks; three weeks incubation period. Rash has disappeared. Patient been treated with mercurial injections. His throat is badly ulcerated; leukoplakia of tongue; gingivitis; extremely hoarse. Patient is a singer, and has lost his voice completely. Cords hyperæmic and swollen; throat very painful. October 6th, 1911: 0·6 gram of salvarsan injected into spinal muscles under local anæsthetic. followed by massage; no pain. 13th: Pain gone from throat; fauces cleared up; gums much better; tongue cleaner; can speak quite clearly; his singing voice has returned, though weak; absorption of injection satisfactory. 16th: Throat normal; tongue and gums wonderfully improved. His voice, he says, "is as good as ever it was," and he is delighted. On hydrogen peroxide gargle. Has to leave London. Advised to continue mercurial treatment.

Case 29.—F. S., æt. 31. October 6th, 1911: Sore on penis first noticed end of May, 1911; rash appeared ? three weeks later. Been under mercurial injections at St. Peter's for past two months. In spite of this, patient is now covered with a profuse virulent and angry-looking papulo-squamous syphilide, most marked over buttock, thighs, legs, arms and forehead; sparse on chest and abdomen. One anal mucous patch. Extensively ulcerated fauces. Moist condylomata on under surface of penis, scrotum, and inner surfaces of thighs. Patient complains of intense nocturnal headaches. Urine normal. Spirochæta Pallida present in slides from condylomata. 0·6 gram of salvarsan into spinal muscles under local anæsthetic, followed by massage; no pain. 9th: Rash faded marvellously, appearing brown in colour; ulcerated throat *improving; condylomata and mucous patch* disappeared, situations dry; headache gone; teeth are very bad; absorption from injection good. 13th: Rash fainter; throat better; patient has œdema of both ankles; albumen in urine, also arsenic. 16th: Œdema less; no albumen; improvement continues. 23rd: Œdema almost absorbed.; rash faint. November 6th: Œdema gone; pigment from rash still present on arms and legs. December 8th: Second injection 0·6 gram of salvarsan into spinal muscles as before; no albumen. *December 11th: Much œdema of "lumbar pad"*; absorption good; no œdema of ankles; urine 1012; no albumen. 15th: Throat normal; still few patches of

brown pigment marking position of larger papules present; Wassermann negative. Patient on mercury and pot. iod.

Case 30.—T. D., æt. 33, unemployed. October 6th, 1911: Patient came up to Out-Patients complaining of œdema of the penis. He laid himself open to infection four months ago. He had not noticed frenal sore and rash now present until pointed out to him, and so history is incomplete. Small hard indurated sore on frenum to be felt through œdematous prepuce. Diffuse maculo-squamous rash over chest and abdomen. Few flat papules on forearms and legs. Inguinal glands evenly and painlessly enlarged. Cervical glands prominent. Epitrochlear glands not palpable. Small ulcer near tip of tongue. Serpiginous ulcers on fauces; urine normal; weight, 9 st. 6 lbs. Spirochæta Pallida present in slides obtained with much trouble from sore. 9th: 0·6 gram of salvarsan into spinal muscles under local anæsthetic, followed by massage; no pain. 13th: Slight infiltration from injection; pain slight; rash vanished; œdema of prepuce cleared up; sore still indurated; throat normal; glands smaller. 16th: Inguinal glands still enlarged; no Spirochæta Pallida could be found in fluid from same; patient worked all day yesterday; no sign of syphilis apart from induration at chancre, which has not yet disappeared. 23rd: Weight, 9 st. 11 lbs.; inguinal glands still enlarged; chancre healed; induration absorbed; patient put on mercury and pot. iod. November 6th: Patient in good health; no recurrences. Patient has not attended since this date.

Case 31.—J. N., æt. 27. Two years ago patient came up to Front Surgery suffering from "sores on penis." Patient had a bad throat at the time. Sores apparently healed under treatment recommended. *About ten months ago a sore appeared on the body* of the penis, which has gradually increased in size. About four months ago patient had paraphimosis, for which he was untreated. Prepuce gradually sloughed away, leaving an "apron" half an inch in width on either side of the frenum. The dorsum of the penis is now covered by one large ulcer, extending from the coronal sulcus to within an inch of the base of the penis. The tag of prepuce hanging from frenum is slightly indurated. The inguinal glands are enlarged and tender on both sides, those on the left have broken down, forming a sinus, the skin surrounding which is very red and infiltrated. The ulcer is covered with a yellow slough, through the cloacæ of which unhealthy granulations present. The whole sore is extremely painful. Patient has been put upon increasing doses of pot. iod. and mercury, the present dose being pot. iod. xxx gr. with liq. hyd. perchlor. ½ dr. four times daily. Condition has gradually become worse under treatment, and so patient was taken into Astley Cooper ward and given 0·6 gram of salvarsan intravenously, all local applications having failed in Samaritan ward. This produced no improvement, and patient was discharged. October 2nd, 1911: Patient has again had a course of mercury and pot. iod. and arsenic; no improvement; 0·6 gram of salvarsan injected into spinal muscles under local anæsthetic; calomel ointment, 30 per cent., used as a local application. 6th: No improvement; ulcer extremely painful; edges are raised. 13th: Patient becoming extremely neurasthenical from pain; no improvement; that the condition is not due to tertiary syphilitic ulceration as diagnosed at first is now certain; from the rapidity with which the inguinal glands and sinus cleared up, the diagnosis appeared correct at first; it now seems to rest between either spreading phagedena and epithelioma. 27th: Ulcer now reaches the abdominal wall, and is exceedingly painful. November 3rd: Piece removed for microscopical examination under novocaine. 10th: Pathological report states, "Section shows no evidence of epithelioma, but that of chronic inflammation, with some endarteritis." December 8th: Patient is again in Astley Cooper ward, with a view to amputation of penis. Mr. Dunn agrees with Mr. Thompson that it is a condition of phagedæna. A Calmette's and von Pirquet's reaction are to be tried, some authorities holding that a mixed tuberculous infection is the cause of such conditions.

Case 32.—A. S., æt. 24. Patient noticed sore at preputial orifice 18 days ago; commenced as small fissure, gradually becoming hard. Incubation period about three weeks. Inguinal glands discretely and painlessly enlarged. Spirochæta Pallida present in slides. October 9th, 1911: Circumcision performed under local anæsthetic, followed by injection of 0·6 gram of salvarsan into spinal muscles; no pain; massage. 13th: Circumcision wound doing well; collar of iodoform gauze removed; inguinal glands smaller no pain from salvarsan injection; massage. 20th: Circumcision healed, stitches removed; absorption good; no secondary manifestations; massage. Patient was attending at St. Peter's in the evenings; no evidence of syphilis; patient on mercurial injections. November 15th: No evidence of syphilis; patient in good health. December 6th: Wassermann negative. Patient still on mercurial injections.

Case 33.—H. T., æt. 28. October 13th, 1911: Sore on penis two months old. Developed ? six weeks after risk of infection. Hard indurated mass forming horse-shoe at coronal sulcus. Diffuse papulo-squamous rash over whole trunk and forehead; extremities discretely affected. Mucous patch at anus. Spirochæta Pallida present in slides. Weight, 10 st. 6 lbs. 0·6 gram of salvarsan injected into spinal muscles of lumbar region under local anæsthetic, followed by massage. No pain. 18th: Rash fading; chancre smaller; less induration; scab removed, and carbolic acid applied; absorption satisfactory; weight, 10 st. 11 lbs. 23rd: Rash not disappeared yet; induration gone from chancre. 30th: Pigment of rash still present; weight, 10 st. 12½ lbs. November 6th: No evidence of syphilis, except pigment. 20th: As above; urine to be tested for arsenic. 24th: Arsenic present in urine. December 1st: Second injection of 0·6 gram of salvarsan under local anæsthetic into spinal muscles; no pain; massage. 4th: Absorption; no pain; no albumen. 15th: Few patches of pigment still present. Wassermann negative. Patient commenced course of injections, the first containing 1½ gr. of mercury.

Case 34.—C. W., æt. 33. Three months ago patient developed a sore on penis for which he was treated elsewhere. About a month ago a diffuse rash appeared; also sore throat. October 16th, 1911: There is now a nodule of induration at frenum, with the mucous membrane intact covering it; patient has two encrusted rupial patches on left forearm and one on the right. There is also a larger patch on the right shoulder behind subjected to friction from patient's braces; fauces not ulcerated; crusts removed and underlying tissue touched with carbolic

acid; patient on arsenic and pot. iod.; Wassermann positive. 20th: 0·6 gram of salvarsan injected into spinal muscles under local anæsthetic; no pain; massage. 23rd: Throat normal; rupial patches rather redder; absorption good; no pain; calomel ointment ordered to be rubbed into patches. 30th: The patches are covered with epithelium, and are a blue colour and quite dry. November 10th: Only scars mark site of syphilide; patient put on mercury and pot. iod. December 8th: Patient in good health; no recurrences.

Case 35.—D. V., æt. 30, groom. Patient contracted syphilis February 2nd, 1910; was untreated until May, 1910. He was then treated at St. Peter's Hospital, having 21 weekly injections of atoxyl, lasting until September, 1910. Being unable to attend regularly, he was put on grey pills. October 4th, 1911: Patient came up to St. Peter's suffering from an ulcer the size of half-a-crown on the back of the right hand; he said it had been slowly getting bigger for past month; it followed a slight injury from a thorn; his master (a veterinary surgeon) tried to cure it with a cautery; a slough resulted which eventually separated, and ulcer has slowly grown in size; it is not painful, and covered by yellow pus beneath which are unhealthy granulations; it has sharply defined edges, and is a true circle in shape; Wassermann positive (St. Peter's). 13th: 0·6 gram of salvarsan injected into spinal muscles under local anæsthesia, followed by massage; no pain. 16th: Patient had rather an excess of pain the evening following the injection, but is now comfortable; gumma is healing, but patient has allowed a scab to form, beneath which pus has collected; this removed and ulcer thoroughly cleaned, and 30 per cent. calomel ointment well rubbed in; site of injection satisfactory; massage. November 3rd: Injection absorbed; gumma much smaller. 17th: Gumma size of a shilling December 11th: Ulcer size of sixpenny piece, and covered with epithelium, blue in colour, and dry.

Case 36.—T. B., æt. 27, lighterman. Sore on prepuce five weeks. Incubation period ? four weeks. There is a hard indurated and puckered mass on the left side of preputial orifice causing mechanical phimosis. Inguinal glands enlarged painlessly. No manifestations of secondary syphilis. Spirochæta Pallida present in slides taken. October 9th, 1911: 0·6 gram of salvarsan injected into spinal muscles under local anæsthetic; circumcision performed, also under local anæsthetic; massage. 13th: Circumcision satisfactory; gauze dressing removed; absorption from injection good; small infiltration; massage repeated. 20th: Circumcision healed; stitches removed; massage to injection. November 7th: No secondary manifestations; absorption complete; patient put on mercury and pot. iod. December 4th: No sign of external syphilis. Patient in good health. To rest from mercury for month preparatory to Wassermann.

Case 37.—A. M., æt. 24, market porter. Sore at coronal sulcus eight weeks; appeared nine days after last risk of infection. Very diffuse papulo-squamous rash over whole body. Macules present on chest. Fauces ulcerated. Patient has been getting slightly deaf lately. Spirochæta Pallida present in slides from sore. Patient put on pot. iod. and arsenic. October 16th, 1911: 0·6 gram of salvarsan injected into spinal muscles under local anæsthetic; no pain; massage. 20th: Rash unaltered, except more pronounced on legs; slight pain from injection; massage; hearing normal. 23rd: Rash turning brown; disappeared from chest; absorption slow; infiltration at site of injection; massage 15 minutes; chancre smaller. 30th: Rash much faded; induration gone from chancre. November 3rd: 0·4 gram of salvarsan injected as before. 6th: Pigmentation from rash still present; absorption satisfactory; massage; chancre completely disappeared. 13th: As above; patient still on pot. iod. 20th: Pigment still present; patient in good health. 27th: Few fresh macules appeared of doubtful syphilitic origin. December 15th: Patient commenced a course of mercurial injections.

Case 38.—A. W., æt. 23. February 27th, 1911: Sore on prepuce three weeks; inguinal glands enlarged suppurating on the right side; slides taken: no Spirochæta Pallida found. March 17th: Spirochæta Pallida found in slides. 20th: 0·6 gram of salvarsan injected into gluteal muscles under gas; massage; cab home. 27th: Chancre smaller; induration less; inguinal glands much smaller; absorption good. April 3rd: Chancre completely healed; no secondary manifestations. 10th: Patient's general condition very poor; patient anæmic; put on mercury by mouth for one week, preliminary to mercurial injections. 17th: First mercurial injection; pot. iod. by mouth. August 18th: Fifth injection of second series; ulcer formed on left fauces. September 17th: Patient has slight gingivitis; rest from mercury. 18th: Bad stomatitis. 20th: 0·6 gram of salvarsan into spinal muscles under local anæsthetic; no pain. 23rd: Mouth much improved; absorption satisfactory; massage. 27th: Fauces clear; no evidence of syphilis. November 3rd: Patient gaining weight; mouth and throat normal. 10th: General condition much improved. 24th: Wassermann negative. December 8th: Patient put on mercury and pot. iod.

Case 39.—H. S., æt. 19. Sore on penis seven weeks There is an indurated sore at frenum. Diffuse macular rash most marked on chest. Inguinal glands enlarged. Epitrochlear glands not palpable Throat and mouth normal. Spirochæta Pallida present in slides. September 29th, 1911: 0·6 gram of salvarsan injected into spinal muscles under local anæsthetic; no pain; massage. October 2nd: Rash faded; sore healed over and induration less; absorption satisfactory; massage. 6th: Rash gone; also induration from sore; thickening at site of injection; massage. 20th: No evidence of syphilis; patient in good health. November 17th: No recurrences; patient put on mercury and pot. iod. Has not attended since this date.

Case 40.—W. F., æt. 25. Small sore appeared in coronal sulcus a fortnight ago, and three weeks after risk of infection. Penis commenced to swell ten days ago. There is now marked syphilitic œdema of whole penis, making it twice its normal size. A hard sore can be felt on the dorsum of coronal sulcus beneath the œdematous prepuce. Inguinal, cervical, and axilliary glands enlarged. Epitrochlear glands not palpable. Diffuse maculo-squamous rash over abdomen, back, forearms, and thighs; chest and face free. Serpiginous ulceration of fauces. Wassermann positive. October 23rd, 1911: 0·6 gram of salvarsan injected into spinal muscles under local anæsthetic: no pain. 27th: Rather marked local reaction to injection; skin hyperæmic and itches intensely; rash wonderfully altered; penis even more enlarged; patient has not kept it strapped up; œdema of lumbar

cushion; no albumen. 30th: Rash vanished; œdema of penis less. November 6th: A faint macular erythematous rash has come out on chest and abdomen; œdema of penis still present, though less; lumbar cushion normal. 10th: Erythematous rash gone; œdema of penis less; absorption from injection not complete. December 1st: Second injection of 0·6 gram of salvarsan as before; no pain; massage. 4th: Penis nearly normal in size; absorption good; no recurrences. 15th: First injection not completely absorbed; second very satisfactory. Wassermann negative.

Case 41.—R. C., æt. 28. Sore on penis ten days: developed one month after exposure to infection. There is a sore on under surface of penis 1½ inches from its termination. It is covered with a scab, and is not definitely indurated. Inguinal glands are enlarged and very tender, the skin over the left group is red. No manifestations of secondary syphilis. Slides from sore after thorough cleansing showed presence of Spirochæta Pallida and a few Spirochæta Refringens. Sore touched with pure carbolic acid. September 25th, 1911: 0·6 gram of salvarsan into spinal muscles under local anæsthetic; no pain; massage. 29th: Sore smaller; slough wiped off, and iodoform powder rubbed in; no pain from injection. October 6th: Sore healed; no secondary manifestations; absorption satisfactory; massage; inguinal glands much smaller and not tender. 20th: Absorption complete; no evidence of external syphilis; patient put on mercury and pot. iod. November 17th: Patient in good health; no evidence of syphilis. Patient not attended since this date.

Case 42.—C. S., æt. 33. September 22nd, 1911: Sore on penis one week. Wife has sores on labia. Fourteen years ago patient had chancres, with no secondary symptoms. There is no evidence of old syphilis. Scars on penis as from soft sores. Present sore hard and indurated on dorsum of coronal sulcus. Inguinal glands enlarged painlessly. Spirochæta Pallida not present in slides. 29th: Induration increased; more slides taken. October 6th: Slides negative; Wassermann positive. 13th: Induration very hard; no secondary symptoms. 20th: Spirochæta Pallida found in slides; inguinal glands inflamed and tender on left side; few discrete papules appeared on forearms. 27th: 0·6 gram of salvarsan into spinal muscles under local anæsthetic; no pain; massage; suppurating bubo opened and packed with iodoform gauze. 30th: Very marked œdema of lumbar pad; rash gone; injection tender; no albumen. November 3rd: Œdema of lumbar pad less; an inguinal gland has herniated through incision; fluid taken from another gland by puncture, and slides prepared; no Spirochæta Pallida found; massage; chancre healed; still little thickening remains. 13th: Œdema gone; absorption good; no rash; inguinal glands resolved; no induration at site of sore. December 3rd: No evidence of syphilis externally. Patient given a card to have Wassermann test obtained, but did not attend.

Case 43.—H. W., æt. 42, dispenser. October 17th, 1911: Patient first noticed small "shotty" lump on penis; appeared 14—21 days after exposure to infection. Does not irritate; is painless. 27th: Hard indurated sore on dorsum of coronal sulcus; inguinal glands enlarged painlessly; no secondary manifestations; Spirochæta Pallida present in slides; Wassermann positive. November 3rd: 0·6 gram of salvarsan injected into spinal muscles under local anæsthesia; no pain; massage. 6th: Induration less around sore; absorption good; massage. 13th: Sore almost healed, no secondary signs; massage. 27th: Absorption complete; chancre entirely disappeared; no secondary signs; Wassermann positive. December 15th: 0·6 gram of salvarsan injected as before; no pain; patient not been seen since.

Case 44.— E. C., æt. 20. Exposure to infection six weeks ago; urethral discharge and swelling commenced three weeks ago. Patient now has phimosis. Hard sore can be felt under prepuce at frenum. Prepuce œdematous. Sparse maculo-squamous rash on chest, abdomen ,and back. Patient complains of his throat; fauces ulcerated. Inguinal adenitis. October 6th: Circumcision performed under local anæsthetic, exposing a hard sore at frenum; Spirochæta Pallida present; 0·6 gram of salvarsan injected into spinal muscles under local anæsthetic; no pain; massage. 10th: Penile condition satisfactory; rash fading; fauces normal; absorption good; massage. 13th: Rash vanished; stitches removed from circumcision; union satisfactory; induration at frenum still present; massage. 17th: Penis healed; induration gone; absorption good. 24th: Progress satisfactory; massage. December 1st: Absorption complete. 2nd: Second injection of 0·6 gram of salvarsan as before; no pain; massage. 15th: Slight pain; no evidence of syphilis. 18th: Wassermann negative.

Case 45.—F. C., æt. 24, "unemployed." Fifteen months ago patient had sore on penis. Treated at St. Bartholomew's Hospital, and cleared up in a week. Broke out again three months later. Patient went to Rotherhithe Infirmary and was kept in for one month, having a rash on face, chest, arms, and legs, and was treated for syphilis, and also circumcised. The sore almost healed and rash faded. The rash, however, has never left him, and now the sore is worse than ever. Patient now has a maculo-squamous rash, mostly on back, forearms, and legs; sight and hearing good. There is considerable loss of tissue of glans penis on under surface of right lobe; very tender lymphangitis leading from this; vessel can be felt to be thickened; patient put on pot. iod. and arsenic; Spirochæta Pallida present in slides. October 10th, 1911: 0·6 gram of salvarsan injected into spinal muscles under local anæsthetic; no pain: massage. 13th: Rash faded; injection painful same evening; œdema of lumbar cushion; no albumen. 20th: Penis completely healed; rash brown and faint. 27th: Rash gone, also lymphangitis of penis; patient in good health; no recurrence. Patient has not attended for Wassermann.

Case 46.—A. E., æt. 31. Seven weeks ago patient first noticed small pimple on inner surface of lower lip on left side. This slowly increased in size to that of a shilling. Much induration occurred, the whole lip becoming very swollen. Cervical glands became much enlarged six weeks from first appearance of sore. Patient also developed an alveolar abscess from first molar (lower) on the left side. He went to a doctor who naturally thought the abscess to be the cause of the adenitis and local disturbance, until on subsequent attendance he discovered a secondary syphilitic rash and so sent patient up to St. Peter's. The lower lip is twice its normal size and very hard, presenting an oval sore with a hard and indurated base on its inner surface the size of a shilling in its shorter diameter. The glands of submaxillary region are very much enlarged, some feeling as large as walnuts.

There is a marked maculo-squamous rash on chest, back, abdomen, forearms, forehead (marked), and sparse on legs. The alveolar abscess has caused marked periostitis of lower jaw locally. Patient looks and feels ill; fauces are ulcerated; severe headaches. Spirochæta Pallida present in slides taken. Patient was given one mercurial injection containing 1½ grs. of mercury and came to Guy's following week. October 9th, 1911: 0·6 gram salvarsan injected into spinal muscles of lumbar region under local anæsthetic followed by massage; no pain. 17th: (Patient seen at St. Peter's) Chancre much smaller and lip returned to normal size; throat normal: rash completely disappeared; glands smaller; patient feels much better; headaches gone; patient continuing mercurial injections. 24th: Chancre disappeared; glands subsided, an onlooker could not detect where chancre had been. 31st: No evidence of syphilis externally; general health good. November 14th: Progress satisfactory; no recurrences. 28th: As above. December 12th: As above.

Case 47. W. K., æt. 19, paper boy. Seven weeks ago patient first noticed sore on prepuce; one week ago rash appeared. Patient has an advanced condition of phimosis due to an indurated sore at preputial orifice; inguinal glands enlarged painlessly; very profuse macular syphilide covering forehead, chest, abdomen, back, and thighs; sparse on arms; fauces ulcerated; *Spirochæta Pallida present in slides.* November 20th, 1911: 0·6 gram salvarsan injected into spinal muscles under local anæsthetic; no pain; massage; calomel ointment 30 per cent. well rubbed into skin of forehead; *patient refused circumcision.* 24th: Rash faded, becoming brown, diappeared from face; sore much smaller; induration less. 27th: Rash completely gone; chancre healed, but induration not quite absorbed. *Patient not attended hospital since this date.*

Case 48.—P. G., æt. 27. Patient first noticed sore on under-surface of coronal sulcus ten weeks ago. This broke and left small ulcer which has persisted. Patient is now smothered in marked papular rash all over body, being nowhere free for an area the size of palm of the hand. General adenitis; epitrochlear glands palpable; severe nocturnal headaches; fauces ulcerated. Patient looks ill. Spirochæta Pallida present in slides. November 17th, 1911: 0·6 gram of salvarsan into spinal muscles under local anæsthetic; no pain; massage. 19th; Rash unaltered; absorption of injection satisfactory; glands smaller; throat clear; patient feels better. A large piece of lint smeared with calomel ointment, 30 per cent., was strapped on back where rash was most pronounced; œdema of lumbar pad; headaches gone; no albumen. 24th: Rash now brown, much fainter where ointment was applied; absorption good; sore healed. 27th: Second injection of 0·6 gram into spinal muscles as before; no pain; massage. December 8th: *Pigment from papules still present*; no albumen; chancre completely cleared up. 11th: Pigment still present; patient in good general health.

Case 49.—S. S., æt. 22. Patient first noticed sore on penis six weeks ago. Both inguinal and femoral glands enlarged. There is a sore the size of a "sixpenny piece" on dorsum of penis. Not definitely indurated. Maculo-squamous rash, discrete on chest, forehead and forearms. One femoral gland much enlarged. (Removed under novocaine for sections); fauces ulcerated. Spirochæta Pallida present in slides. November 17th, 1911: 0·6 gram of salvarsan injected into spinal muscles under local anæsthetic. No pain; massage. 19th: Rash faded, brown and more scaly; glands subsided; sore much smaller; fauces clear; massage. Sore treated with pure carbolic and calomel ointment. 21st: Absorption satisfactory; chancre nearly healed; rash very faint on chest only; glands resolved. December 11th: Patient now attending St. Peter's; rash completely gone; chancre healed; patient on mercurial injections.

Case 50.—A, W., æt. 34. About two months ago patient first noticed "pimple" on prepuce. November 17th, 1911: He first came to the hospital with an indurated chancre on the prepuce. Spirochæta Pallida present in slides taken. Circumcision performed under local anæsthetic. Patient also had papular rash, most marked on forearms and buttocks; mucous patches on inside of cheeks; pains in shoulders, and headaches. Patient said he could not wait for injection of salvarsan. Patient put on arsenic and pot. iod. December 8th: Circumcision completely healed; 0·6 gram of salvarsan given into spinal muscles under local anæsthetic; no pain; massage. 18th: Absorption satisfactory; headache gone; few brown pigmented patches marking position of papules; no albumen; mouth clear; slight œdema of lumbar cushion.

Conclusions.

After reading the accompanying detailed list of individual cases treated with salvarsan one cannot but admit that there is sufficient proof that this drug is undoubtedly a most valuable adjunct in the treatment of early syphilis amongst out-patients. Ths following points serve to enforce this.

(*a*) *The rapidity with which the patient becomes sterilised.*—By this I mean that he is rendered incapable of infecting others. Lesions of the mucous membranes heal almost miraculously, and it is these lesions that are above all others the most dangerous from the point of view of infectivity by virtue of the copious exudate, rich in Spirochætes, always present on their surfaces.

Again, the primary sore in nearly every instance became dry and almost healed three days after the injection.

The drug, then, is extremely valuable from a sociological aspect, more especially as applied to out-patients, many of whom sleep in the common lodging-houses or are crowded in the smaller dwellings, where eating and drinking utensils, towels, etc., are promiscuously used by members of the same family. Again, the spread of infection by means of kissing would be greatly checked were the employment of salvarsan to become more general. The digital chancre, the dread of every practitioner and dentist, would be of rarer occurrence were the drug administered at every out-patient department of the large hospitals.

One case in particular stands out in my memory as emphasizing the rapidity with which salvarsan clears up lesions of the mucous membranes. A singer, a member of a travelling operatic company lost his voice completely, as regards singing, and, therefore, very nearly his means of livelihood. He presented the usual manifestations of marked secondary syphilis. On the day following the injection of salvarsan he assured me that his voice, though rather weak, had returned, and at the end of a week he described it as being "as good as ever it was." Dr. Allport once told me of a case where a patient immediately after he had received an intra-venous injection of salvarsan in the treatment of syphilitic ulceration of the fauces, stated that "he could feel it acting on his throat."

Again, the majority of patients after receiving the intra-venous injection of salvarsan mention a "metallic taste" as occurring in the mouth, and this sometimes even whilst the infusion is taking place, but usually within the following hour. This shows how quickly the mucous membrane of the oral cavity comes under the influence of the drug. This metallic taste is generally noticed on the day following the administration when the intra-muscular injection is employed.

During the past six months I have been able to watch, at St. Peter's Hospital, the progress in a great number of cases of early syphilis when treated by mercury in various forms by the mouth, and by intra-muscular injections. Also a good number of cases in which I employed atoxyl by the intra-muscular injection. Compared to salvarsan, these various methods of treatment take much longer to produce the same results that can be obtained by the former at the end of the first week.

Case No. 1 is interesting in that it serves as a good example, firstly, of the light in which the average out-patient regards syphilis as evidenced by the fact that within less than a fortnight after the injection of salvarsan he was engaged in a boxing competition, and secondly, that by means of that injection he was rendered incapable of infecting other competitors by means of the sponges and towels in use.

(*b*) *The effect of salvarsan upon the Wassermann reaction.*

Most of the authorities now agree that salvarsan influences the serum reaction in syphilis more rapidly than any of the other drugs employed in the treatment of this disease. Wechselmann obtained a negative Wassermann reaction in 153 out of 268 cases treated with salvarsan within a period of from four to five weeks. Schreiber and Hoppe report a negative reaction in 85 per cent. of cases within seven weeks of the injection. Major Harrison, R.A.M.C., states "that the injection of salvarsan [12] leaves the patient better from a Wassermann point of view than two years' treatment by mercurial injections." His figures proving this are as follows:—

Out of 124 patients who had undergone a two years' course of mercury injections, 77 gave a negative Wassermann. Out of 165 patients who had received an injection of salvarsan, 126 gave a negative reaction in from 6 to 12 weeks. He, however, does not state in what proportion the intra-venous and intra-muscular or both were employed. In the 50 cases described in his paper it is seen that the serum reaction is rendered negative within the first six weeks in the great majority. For the negative reaction to return to positive is a more likely occurrence than for it to remain negative should treatment be withheld after the one injection of salvarsan. Therefore, one injection of the drug in the majority of cases is insufficient. There are some cases in which a negative reaction is converted into a positive after the injection of this drug.

Bunch[13] suggest the following explanation:—"that a dose insufficient to kill the Spirochætes stimulates them to increased activity, and so the production of the immune body which is found in positive sera."

As far as we know at present, the interpretation of the clinical significance of the Wassermann reaction simply brings us to this: a positive reaction indicates the presence of active Spirochætes within the system, and a

[12] *B.M.J.*, Sept. 23rd, 1911.

[13] *Practitioner*, July, 1911, "Hereditary Syphilis and its Treatment, by 606."

negative reaction may indicate either that Spirochætes are present in a latent form, or that they are entirely absent. A negative reaction, therefore, is valueless from a point of view of prognosis in a syphilitic patient under treatment unless it should remain negative on successive tests taken at intervals of, say, three months over a period not less than two years, and this after treatment has ceased. Now, in the treatment of syphilis amongst out-patients, the greatest difficulty to overcome in arriving at definite conclusions regarding the results obtained is that the majority of patients either will not or cannot attend for a period sufficiently long (*i.e.*, at least two years) for one to claim a cure or otherwise.

Most of them come from that class where employment is uncertain, or else may force them to leave the neighbourhood. Others prefer to judge for themselves as to whether they are cured or no, and many are too callous to trouble one way or the other provided that they are in no pain or discomfort. Out of 15 patients I wrote to a short time ago in order to obtain the results of the Wassermann test, two letters were returned, the patients having moved; one wrote stating he was just going abroad, and of the remainder four only arrived at the hospital on the date requested.

(*c*) *That, provided that the technique is thorough, then the intra-muscular injection is an absolutely safe and effective means of administering salvarsan.*

This is proved by the entire absence of any toxic symptoms of any significance. Absorption has, on the whole, been thorough and satisfactory, as far as one can estimate from the fact that, when tested for, arsenic was found present in the urine, on the day following the injection, in those patients who were not put on a preliminary course of that drug. Again, in those patients who received the last injection not less than a month ago, no evidence remains *in situ* that such had ever occurred. That the drug has been thoroughly efficacious when introduced by this means is amply proved by the negative serum reaction obtained in most instances at an early date, and again by the rapid improvement clinically.

Pain certainly has been the chief and only objection that can be raised. I now find that a large fomentation of thick flannel wrung out of boiling water is a great adjunct to the local anæsthetic contained in the injection in reducing discomfort to a minimum, and it is only in the exceptional case that this is requisite.

Regarding the toxic effects of salvarsan.—It is now generally agreed upon that the great majority of the symptoms put forward as manifestation of the toxicity of salvarsan, by those opposed to the drug, are in reality entirely due to faulty technique. Thus, nearly all the various symptoms described as being liable to occur after the intra-venous injection could be produced if a fluid, free from salvarsan, was to be injected with the following variations:—

(*a*) By injecting it too rapidly.

(*b*) By injecting it at too high or low a temperature.

(*c*) By allowing bubbles of air to enter.

(*d*) By production and dislodgement of a blood clot.

(*e*) By injecting a fluid either markedly acid or alkaline in reaction.

(*f*) By using a fluid not absolutely sterile or recently rendered so.

Another point that has struck me as being responsible for the formation of a small embolus is that with the large needles, generally used for the intra-venous infusion, there must often be introduced into the vein a small plug of tissue. As the needle pierces the skin and subcutaneous fat the end must in some instances become occluded just as a "cheese-taster" retains a cylinder of cheese each time it is inserted. In the case of the needle the plug must be blown out as soon as the head of fluid is applied.

Gibbard and Harrison[14] in their last report stated that they had had no disasters in upwards of 650 injections of salvarsan, so that toxicity can hardly now be considered as a serious objection where the drug is employed in suitable cases and with careful technique.

The chief reason that so many have been strongly biased against salvarsan is, of course, that it is a proprietary drug, and as such each

[14] *B.M.J.*, September 23rd, 1911.

dose of it that is used places money into a certain business concern; and not only this, but that the price demanded is very excessive and probably out of all proportion to the cost of manufacture. However, as the drug exists, and we have to move with the times, it is at the larger institutions, such as this hospital, that it should be given a fair trial, and this I have endeavoured to accomplish.

And now a few remarks in general. With few exceptions, patients have gained in weight, some in a striking manner, while under treatment. In those exhibiting anæmia of secondary syphilis the colour index improved rapidly, also the number of red corpuscles. Leucocytosis follows almost every injection, 16,000 to 17,000 being about the usual count.

Constipation very frequently follows the injection, sometimes being obstinate. Diarrhœa has not occurred. The feature in this treatment that impresses one most is the marked change in the general condition of a patient within three days of the injection. His complexion clears giving him a clean and more healthy appearance. He usually remarks that he feels a different man. The appetite improves, and his mental aspect becomes more cheerful. There has not yet been a patient who has expressed regret at having had the injection, although some have complained of pain, but none showed reluctance for a second injection.

One of the greatest features of salvarsan is its value in the treatment of those cases where the patient possesses an intolerance to mercury, and again in those where mercury is ineffectual, and the patient is slowly going down hill.

I have been able to use it in some of the latter who have been attending St. Peter's Hospital, with the very striking results described in detail elsewhere.

That salvarsan is an absolute cure for syphilis has yet to be proved. There are, however, already cases on record where a patient after treatment with this drug has contracted a fresh infection. This would seem to be a definite proof that a cure was effected in the first instance, but these cases require a very careful investigation, since the drug has only been employed little more than a year in this country and the "recurrent chancre" that the late Sir Jonathan Hutchinson described, not infrequently developes within that time.

It is now generally agreed that such a thing as immunity to syphilis does not exist, either in the case of the patient's own original virus or to a foreign one (McDonagh). The only person, therefore, who can be considered to be immune to syphilis, is a person already suffering from that disease.

Recurrences during treatment by salvarsan are being reported every day, as also the return of the negative Wassermann reaction to positive, is extremely frequent, yet as more and more becomes known concerning the best means of administration of the drug, its dosage, and the frequency of these, coupled with the great help afforded by the Wassermann reaction, it seems more than possible, in fact probable, that in salvarsan we have the true specific.

In the light of what is so far known of the drug, the following is, in my opinion, the best course of treatment as applied to the out-patient:—

First injection of salvarsan (intra-muscular).

Second injection of salvarsan (intra-muscular) 14 days later.

(*a*) Three months' course of mercury injections, one month's interval (a Wassermann reaction to be obtained at the end of same).

(*b*) Three months' course of mercury injections, three months' interval, Wassermann again taken.

Should this be negative, then to be repeated at the end of further three months.

For the subsequent two years the patient is advised to take a six weeks' course of the grey pills at the commencement of each year, and to have the Wassermann reaction tested each six months.

Should the patient have a recurrence, or the serum reaction fail to remain negative, then, of course, this plan would have to be modified, and a more vigorous course adopted.

During the mercurial treatment the patient is kept on a course of potassium iodide, given in small doses.

The intra-muscular injections are by far the most satisfactory when it is decided to put an out-patient on mercury. By this method one is definitely certain as to the exact amount of mercury that is introduced and when it is introduced. Massage is as important in these injections, as it is in the salvarsan injections, in promoting thorough absorption and diminishing pain. Gastro-intestinal disturbances are of very rare occurrence.

The other means of giving mercury, namely, by the mouth or by inunctions, are not nearly so satisfactory amongst out-patients, because the control of the dosage is placed entirely in the hands of the patient. The objections to the intra-muscular injections of mercury are these:—

(*a*) That in a certain percentage of cases the formation of an abscess occurs at the site of injection, no matter how much care is taken to maintain absolute asepsis. It is curious that the patient's resistance seems to be the greatest factor in this mild form of suppuration. Many patients go through a complete course of two years' treatment without developing a single abscess, whereas others are unfortunate with each injection, so that the form of treatment has to be discontinued.

(*b*) In the event of a patient suddenly exhibiting signs of mercurialism it is impossible to prevent further absorption ensuing from the site of the last injection, and very often there is still a slight deposit not yet absorbed from the preceding one. In this respect daily massage by the patient himself is all-important, thereby promoting complete absorption of the last injection, the effects of which can be noted, before a fresh one is administered.

In the better class of out-patient, or should the patient be gifted with more intelligence than the average, then inunction is by far the best means of giving mercury. Patients are brought under the influence of the drug very rapidly by this means. Gastro-intestinal disturbances are very rare, and its great value rests on the fact that in cases of mercurialism the amount of mercury entering the system can be checked instantly. This is proved clinically by the rapidity with which symptoms of mercurialism disappear if the patient be ordered a hot bath with thorough cleansing of the areas of skin through which absorption has been taking place, and followed by a Turkish bath each day.

No matter in which form mercury is given by the mouth absorption does not cease immediately when administration is stopped, since there is always a residue in the mucous membrane lining the intestinal tract.

From the out-patient point of view the following points are favourable in the employment of salvarsan as a routine. As pointed out, he is rendered non-infectious at an early date. Symptoms, such as headache and pain generally are cleared up in 24 hours, and so he is in a better condition to carry on his employment. His attendances at the hospital are less frequent. The irksomeness of a two years' rigid course of mercurial treatment, during which time he is forbidden tobacco, is obviated.

As concerns the hospital, of course, the expense is greater with this drug—a full dose, 0·6 gram., costing 8s. 6d. Most of the mercurial preparations are extremely cheap, the two years' course of injections of mercurial cream would cost less than the first injection of salvarsan. There are, however, other diseases treated at this hospital where the ultimate result must inevitably be far less satisfactory than is that attained in the treatment of syphilis, and yet the expense is much greater. Therefore, that should not be the sole controlling factor in the selection of a drug. The reputation of the hospital is its greatest attribute, and this is the better enhanced by an exhibition of the latest and best treatment that can be afforded.

From the surgeon's point of view there is very little to be said. The time and trouble required in the treatment of syphilis by means of salvarsan is certainly less than that required with, say, mercurial injections. The army surgeons particularly make a point of this in their reports. The preparation of the injections, of course, takes time, and each must be freshly made up immediately before the administration.

In every case here described Mr. Finnemore has very kindly taken great trouble to ensure that each injection is prepared but a few minutes

previous to use. I would like here to thank him for all the help he has rendered me in order that the most satisfactory preparation should be arrived at.

The massage described is pretty hard work for the surgeon, but amply repays him in the subsequent progress of the case, and there is less exertion than would have to be expended in a patient under a two years' course of mercurial injections.

With the drug at hand, the actual injection, including the preparation of the skin, should not take more than ten minutes.

I am deeply indebted to the Bacteriological Department for all the help that has been given to me, both as regards the Wassermann tests and also for the use of the laboratory for the examination of the slides used for diagnosis.

And, lastly, I must mention my sincere gratitude to Mr. Thompson for all the consideration he has shown me whilst engaged in the work, and express my appreciation of the deep interest he has exhibited in watching the progress of the cases submitted to this treatment. Deprived of his encouragement, what has been a great pleasure would have become a burden.

Correspondence.

To the Editor of Guy's Hospital Gazette.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—Ed., G.H.G.]

T. H. W. Landon.

Dear Sir,—There are hundreds of Guy's men who wish that some permanent memorial should be placed in the Hospital to the memory of "Tommy Landon" who founded as a permanent institution the Children's Christmas Tea.

On Monday next the tea and the entertainment which has always followed it, will take place in the Out-Patient Department for the fifteenth time. Every year an enormous amount of work falls upon those men who act as secretaries to the Fund, and upon Sister Out-Patients, but few people have any idea of the difficulties which were overcome in 1897 by the man who first took up the burden of the work.

The idea was his own. He was told frankly by some of his best friends that the whole affair would be a gigantic failure, that Borough children would not want to leave their homes on Christmas Day, that the Out Patient Department would be wrecked if they came. But the originator of the scheme would admit of no impossibles. His ears were open to no pessimists—his was the determination which clears all obstacles—his were the hands which give personal service. As a matter of fact, upon that first occasion—over 490 children were entertained.

A correspondent in the Gazette of January 8th, 1898, writing of him "to whom the lion's share of the credit is due," says: "He worked indefatigably from start to finish, and it must have pleased him immensely to receive the universal congratulations he did, on the success of the afternoon."

Something more of Landon's stirling character is apparent by a short sentence which appears in a letter of thanks written to all those who had helped him on that day: "If the inhabitants of the Borough by any chance now regard the Hospital in a more friendly light our labour has not been in vain."

Since then, some of us have spent more than a few Christmas Days among the children in the Out-Patient Department, and to some of us it has come to be quite the happiest afternoon in our hospital year, but it is so jolly easy to follow the path when some one else, honest and honourable, has first gone ahead to point out the way.

I think, Sir, and I know that there are many who hold with me, that in future this annual event of the Guy's year should be known and described as "The Landon Christmas Tea," and I also think that there should be placed in the Hospital Chapel a bronze tablet, on the wall at the left side of the statue of Thomas Guy, where space could easily be made, and where in simple language a note could be made of him, who, in unselfishness, with his own hands gave true and laudable service for the children of South London.—Yours truly,

X. Y. Z.

The Prospects of the Medical Profession.

Dear Sir,—In reference to "Cotswold's" letter in your issue of December 9th. As regards District Nurses and Midwives; I have nothing to add to that which is contained in my letter published by you in the Guy's Gazette of November 25th.

As regards vaccination: The children were brought to my surgery on a given day, at a given hour. They were

ranged round the room on the laps of their mothers. My dispenser cleansed the arms in accordance with my instructions. I vaccinated the children. My dispenser did the clerical work. I inspected the children a week later—"inspection" is quite a correct term for "Cotswold" to use, but rather an imposing word for looking at an arm to see if the vaccination had been successful—it does not take a moment. Whether I carried out "all the instructions of the Local Government Board, as every honest vaccinator should," is, I think, best answered by reminding "Cotswold," Public Vaccinators are paid by results. I have often vaccinated 20 to 30 babies "all in row," and not made one cry. If one baby cried, they all cried. Pandemonium! If no baby cried, well no baby cried. A circle of angels.

What more harmonious to a mother's ear
Than baby singing? Pretty dear!
What more distracting to a fellow's head
Than baby howling? Father said.

Yours faithfully,

December 10th, 1911. "MIDDLE-AGED GUYITE."

(This correspondence must now cease. Ed. G.H.G.)

Sir Samuel Wilks.

Sir,—May I be allowed to say a few words of respect with regard to Sir Samuel Wilks, to whom I owed a great debt of gratitude. I knew him personally as a friend and medical adviser in a time of dire stress and trouble. My husband for years suffered from brain-fag, caused by overwork, during which periods Sir Samuel and my life-long friend, Arthur Durham, were my most sympathetic helpers. The last letter Sir Samuel sent me, after four pages of minute instructions about this illness, had an added postscript, which shows the splendid character of the writer. The P.S. was as follows:—"To you I give all my sympathy, for yours is a trouble which cannot be told, as the world must not know. Your heart alone can know its own bitterness, but I know you will now act as you always have done, sensibly making the best of circumstances." Then followed an extract from Edgar Allan Poe. So Sir Samuel held out to me his helpful belief and sympathy.

Sir Samuel was a man of infinite talent and a judge of character. Like the author of "Sartor Resartus," no grand outside trappings appealed, either for himself or with respect to his patients. He had no humbug, relying more upon ministering to a mind diseased than to a large administration of drugs. His prescriptions were sparse and simple. A deep vein of humility and shy reserve of manner might have made some people think him destitute of sympathy, his grandest quality. His view of life, religion, and of every phase of humanity was wide, kind, and broad as the world. He loved children, of which I had sad evidence in his attendance on my lost little girl. His favourite topics to me were upon heredity and the importance of education. Through all his conversations ran a refined sense of humour. Guy's Hospital may well be proud of its "Grand Old Man."—I am, Sir, yours truly,

MARY ALLPORT.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Diseases of the Eye. 3rd Edition. By May and Worth. (Ballière, Tindall & Cox.) Price, 10s. 6d.

The third edition of this book fully maintains the excellence of the previous editions. The arrangement of chapters is the same; a good deal of recent work is added. There is quite a new chapter on Vaccine-Therapy and its relation to ophthalmic practice. This chapter is ably written by Mr. S. H. Browning, Bacteriologist at Moorfields Hospital.

Diseases of the Eye. By Swaney and Werner. 10th Edition. (M. K. Lewis.) Price, 12s. 6d.

The 10th edition of this manual has been much improved by the arrangement of chapters and the addition of coloured plates (21). The early chapters now deal with the functions of the eye. The recent advances in eye-work are included. The book should well maintain its place of favour among students of Ophthalmology.

National Conference on the Prevention of Destitution. Reports of the Proceedings. (P. S. King & Son.) Price, 10s. 6d.

This volume contains an account of the conference, the first of its kind in this country, which was held at Caxton Hall during the summer. Even a glance through the volume is interesting as showing how intimately medical considerations enter into every social problem of the day. The reports are arranged in sections—Public Health, etc., and each section is prefaced by an excellent outline of the present position of the law and the principal facts connected with the subject matter of the section. Naturally, National Insurance and the Medical Inspec-

tion and Treatment of School Children receive a large amount of attention. Guy's men will turn with interest to Dr. Lauriston Shaw's paper on "Medical Treatment of School Children by General Practitioners," and to Mr. F. E. Fremantle's on "The Relation of a Unified Public Health Service to Voluntary Agencies."

Common-sense Dietetics. By C. Louis Leipoldt, F.R.C.S. Williams & Norgate. Price, 2s. 6d. net.

A book on the lines of the one before us was well worth writing, and it appears very appropriately in time for Christmas. Mr. Leipoldt deals here with diet from many points of view. The earlier chapters explain the physiological principles of diet; then follow entertaining chapters on fasting and overfeeding, diet fads and fallacies, the art of dining, famous diners and their cooks, etc.

In this book you may learn not only what is meant by a "gastrosoph," but also the whole art and duty of a gastrosoph. Mr. Leipoldt writes in an easy style, which makes the book pleasant reading even to an unscientific person.

Sport.

Rugby Football.

GUY'S v. RICHMOND.

On Saturday, December 11th, Richmond paid their first visit to Honor Oak Park. All previous meetings have been at Richmond. The above marks a noted departure, and shows up the fact that Hospital Football is becoming increasingly important.

Millett and Hoby were away from Guy's side, Duggan being the most notable absentee from Richmond. Oglethorpe, who played so well the previous Saturday against Old Merchant Taylors, when Richmond beat them, was also away.

The ground was not unnaturally heavy; the teams lining up somewhat late owing to some Richmond players having a difficulty in finding the ground. Guy's went off at a great pace. A good run by Medlock was almost successful in the first few minutes. Anthony just after was almost a scorer, Ainsworth, at full-back for Richmond, finding it difficult to stand on the mud. From the drop-out Richmond got away on the right, but the ball was quickly brought back and scrummaged on the line, where Anthony gained possession and dropped a good goal. Anthony was in good form, also Kennedy and Stranack. The latter started a fine movement which finally left the ball with Harkness, who grounded by the posts. Stokes goaled. Half-time: Guy's, 9 points; Richmond, nil.

Richmond held the upper hand on resuming, their forwards putting much more energy into it. Wilson was the most prominent, with D. F. Smith a good second. A fine run by Plant and cross-kick put Wilson in for a try before five minutes of the second half had elapsed, Ainsworth's kick at goal falling short. For a time Guy's did very little but defend. Pritchard and Harkness tackled well, but once Wilson got up to Day-Lewis. His pass, however, was not accepted, Harkness securing and punting to touch at the stand. But Richmond were soon back again, although the forwards appeared to be offside when the movement commenced. Wilson was again in possession, and punting high the ball bounced right for A. H. Read to touch down, Ainsworth easily goaling. From now to the end Guy's attacked persistently Medlock opened up the game with much ingenuity, and all the three-quarters played distinctly well. With only a few minutes to go, Ainsworth kicked the ball back towards his own goal-line. It eventually reached almost, if not quite, the dead ball line, but Medlock was first up to it, and, touching down, a try was awarded. A magnificent goal by Stokes, from the line, brought a really good game to a close. Guy's, 3 goals (1 dropped); Richmond, 1 goal, 1 try. Team:—

GUY'S.—A. Day-Lewis (back); A. L. Stokes, G. B. Pritchard, A. H. Harkness, B. Sampson (three-quarters); A. F. Rook, C. H. Medlock (halves); W. S. Stranack. R. S. Kennedy, V. Glendining, A. B. Danby, A. W. A. Davies, A. L. Liebson, H. Anthony, H. Daw (forarwds).

REMARKS.—The whole side played good football. The forwards are fast making a real live pack. Push in the tight and devil in the loose is wanted. Rook won't do at half-back, but it was a bad day for him, the ball was difficult to pick up. Medlock was good. He is much the most ingenious of the backs, who played very well indeed; but they are, without exception, very prone to do the obvious. A "dummy" might be given now and then with advantage, a feint at drop kicking, anything but what the opposition expect. It is the unorthodox that pays.

GUY'S v. BEDFORD.

Bedford held a long record of wins on their own ground up to last Saturday, when Guy's spoilt their sequence of victories. Most of the scoring was done in the first half, during which time the whole team, but more specially the backs, showed such combination as to make victory

almost assured. Guy's pressed from the start. A good passing run between Medlock, Pritchard and Stokes ended in the last-named being thrown into touch; but from a line-out a little later, Guy's got away nicely, and Sampson opened the scoring with a try wide out. No goal resulted. Strenuous forward work ensued with Bedford defending vigorously; but the handling of the Hospital threes enabled Sampson to score again, Stokes kicking a very excellent goal. After Bedford had forced a minor, Guy's returned to the attack and Davis getting possession ran through brilliantly for a fine try; the kick at goal hit the posts. Again the three-quarters handled in splendid style, and again Sampson went over with another score. At half-time the Hospital were 14 points to Bedford nil.

Directly the second half started, Pritchard gained a magnificent three points, which were not added to, after which Bedford had more of the game. Cocking dropped at goal, but it fell short. Then Heard got away but was pulled down. Twice the students were penalised, but the kicks fell short. Manton, a prominent forward, led a rush for the line, but the ball was kicked too hard and Millett touched in defence. Millett then had a drop which sailed wide, so that with "no whistle" approaching, Bedford's score-sheet was still blank; but in the few remaining minutes Hall gained an unconverted try for them, and Llewellyn placing just afterwards a good penalty. The final total read—Guy's 1 goal and 4 tries to 1 penalty and 1 try (17 points to 6). Team:—

Guy's.—H. Millett (back); A. L. Stokes, G. B. Pritchard, A. H. Harkness, B. Sampson (three-quarters); C. H. Medlock, J. E Davis (halves): W. S. Stranack, R. S. Kennedy, V. Glendining, H. Hoby, O. Parry-Jones, H. Anthony, A. L. Liebson, H. Daw (forwards).

Remarks.—The whole team played well and showed a thorough understanding of each other which is fast becoming a most important factor. The back division were really brilliant, while the forwards by their consistent good work paved the way very completely for the complete success of the open tactics which accomplished so much good play. The enthusiastic examples shown by C. H. Medlock and W. S. Stranack is almost bound to produce a team which will in all probability rival, if not excel, many of the prominent Guy's teams of recent years.

Durbar Honours.

Surgeon-General A. M. Branfoot, C.I.E., I.M.S., President of the Medical Board, India Office, to be K.C.I.E.

Association Football.

GUY'S v. ROYAL COLLEGE OF SCIENCE.

University of London Cup.

On Wednesday, December 6th, at Honour Oak Park, the Hospital met the Royal College of Science in a preliminary round of the above cup, and beat them by five goals to four. The visitors who put Guy's out of the cup in the semi-final last year scored first and, maintained their lead till about half-way through the first half. From this point till the end of the game, except for a few minutes just before time, Guy's were easily masters of the game, and added four more goals, two falling to Veale and two to Spong. Just before time, however, the home team seemed to go to sleep, and the Royal College of Science obtained three goals in quick succession. Guy's thus won a very hard game as above. Team:—

Guy's.—Morrish (goal); Keer and Neale (backs); Camp, Kyle and E. L. Jones (half-backs); Spong, Coxon, Veale, Matthews, and Beavis (forwards).

GUY'S 2nd XI. v. OLD CITIZEN'S RESERVES.

Surrey Junior Cup—3rd Round.

This match was played at Honor Oak Park on December 9th, and resulted in a win for the Hospital by 4 goals to 2.

The first half was evenly contested, and after an early score by the Hospital, the visitors drew level towards half-time.

After the interval the play of the home team improved considerably, and three goals were quickly scored—all by James. Towards the close the Citizen's replied once. Team:—

Guy's.—H. W. Gray (goal); Kidman, Gill (backs); Wallis, E. L. Jones, C. C. Gibson (halves); H. C. Rook, W. Matthews, Coxon, H. G. James, Staley (forwards).

Births.

DAWSON.—On December 5th, at Portarlington, College Place, Southampton, the wife of W. J. O. Dawson, L.D.S., R.C.S. Eng., of a son.

GROVE.—On December 9th, at St. Ives, Huntingdonshire, the wife of W. R. Grove, M.D., of a daughter.

MANNING.—On December 9th, at Rodwell Lodge, Weymouth, the wife of T. Davys Manning, M.B., B.S., of a daughter.

Ed.—E. G. S.